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ILLUSTRATIONS.

Crypt at St. Mark's, Venice 237
Monument of the Doge Vendramini, Venice: Latter Part of Fifteenth Century 238
The New Reredos, Salisbury Cathedral.—Sir Gilbert Scott, R.A., Architect 239

CONTENTS.

A New Work on Venice 235
Professor R. N. Barry on Architecture: Domestic Architecture, Twelfth Century 237
Rambles and Studies in Greece 238
Cleopatra's Needle 239
Architecture in the Royal Scottish Academy 239
Of Taste, Natural and Cultivated, in Architecture and the Fine Arts 239
"The Battle of St. Egidio" 239
The Responsibility of Masters to Workmen for the Negligence of Fellow-Workmen 239
A Suggestion for the Thames Embankment 239
"L'Avenue du Grand Carrousille" 239
Jules Janin's Sale 239
Sanitary State of the War Office 239
The Mycenæ Treasure 239
Reredos, Salisbury Cathedral 241
The Decoration of Interiors 241
Scenery in Stone 243
Gold and Silver in King Solomon's Time 244
Value of Gold and Silver 244
The Household at Different Ages 244
"A Possible Cause of Danger" 245
The Rising Sculptors and Carvers 245
Builders' Clerks' Benevolent Institution 246
Liverpool Engineering Society 246
Public Works and Buildings: The Civil Service Estimates 246
Artisans' Dwellings Company: Risky Tactics 247
Masters and Men 247
The Powers of Court Leet and Court Baron: Sir Digby Cayley v. Coates 247
Surveyors' Actions: Tillman v. Ayre's Quay Bottle Company 247
Damage to Goods in Transit: The Vigo Brick and Tile Works v. The Great Northern Railway Company 247
Treatment of Tendoress 247
The Birmingham Architectural Association 248
The Human Form: its Structure in Relation to its Contour 248
Faulty Foundations: Sinking of a Gas holder Tank 248
Pole Scaffold versus Timber-built Scaffold 248
Floating Baths 248
"The Pulley of the Future" 248
School Board Schools 248
School-Building News 248
Church-Building News 249
Dissenting Church-Building News 249
The late Mr. Robert Mathesen, Architect 250
Various 250
Miscellanea 251

A New Work on Venice.

IN a novelette containing some of the worst and best of his writing, Balzac has represented a young noble, the last descendant of one of the old Venetian families, musing sadly over the contrast between the past and the present. As he glided dreamily along the canal in his gondola, enjoying the modern consolation of a cigar, "Emilio could not but think of the days when the Memmi Palace had blazed with light at every window, and resounded with music heard far over the waves of the Adriatic; when gondolas by the hundred were to be seen moored to its painted posts, and the water-laved steps were the landing-place for all the dignitaries of the Republic crowding in together; when the saloons and galleries were gay with an assemblage intriguing and intrigued with" (*intrigués et intriguant*); "when the great banqueting-hall, furnished with festive tables, and its open colonnades filled with music, seemed to contain all Venice coming and going on the staircases that resounded with mirth. The art of the best sculptors from age to age was shown in the bronzes which carried here the elegant or sumptuous vases brought from China, there the candelabra with thousands of lights. Every country had contributed something to the gorgeous display of the walls and the ceilings. To-day the walls, despoiled of their rich hangings, the ceilings bare and gloomy, seemed silently to mourn. Gone were the turkey carpets, the lustres festooned with flowers, the statues, the pictures, the mirth, and the money, that great vehicle of mirth! Venice, that London of the Middle Ages, was falling to pieces stone by stone, man by man. The dank vegetation on the base of the palace, which swayed to and fro with the motion of the water, seemed in the eyes of a prince like a black fringe which nature had attached as a sign of death. Finally, a great English poet had come there to feed upon Venice, like a crow on a dead carcass, to croak over it in lyric poetry, that first and last language of societies, the stanzas of a *De Profundis*. English poetry thrown in the teeth of a city that had given birth to Italian poetry! . . . . Poor Venice!"

The musings of Prince Emilio represent the more shaded side of what gives to Venice in modern eyes so much of its enduring charm. In its great days it must have been one of the most attractive, perhaps the most attractive, city of the modern world. Its peculiar situation as the link between the West and the East,—the "exhaustless East," as Byron calls it, and as it really must have seemed then,—and its no less peculiar picturesqueness of site and surroundings, must have given a strange and varied interest to Venice, in the high tide of its gay existence, and surrounded its gaiety even then with a kind of rich and poetic charm. But it may be doubted whether the interest of the place is not far deeper now than it ever was in the great days of the Republic. As its outward aspect derives the more beauty from the ever present reflections and shifting lights of the water from which it rises, so its poetic interest in decay is rendered all the stronger from the reflection of the memories of its gorgeous past. As we turn to the first page of the book which is before us,* we find that we have unwittingly dropped into almost the very phrase of the author. Venice, he says, adds to the historic interest of its past "l'attrait de l'art, la curiosité de la situation, la singularité de son origine, le prestige qu'un passé plein de grandeur donne fatalement à un monde resté tout entier debout, mais qui semble avoir perdu son âme et sa vie, et ne présenter plus que le majestueux décor d'un immense théâtre dont la scène est restée vide." Even under the bright sun which glares and sparkles upon everything, the city of St. Mark keeps a sort of elegiac sadness of aspect. A residence at Venice, he thinks, will hardly harmonise with the mind of any one who is enamoured of the bright side of life and the stir of society; but to those whom circumstances or temper have led to a different turn of mind, Venice has an inexplicable charm, in the clearness of its atmosphere, the silvery light which plays over it, the steel-like glitter of the lagunes, the softness of the Venetian speech, the nights as clear as the days, "et le je ne sais quoi qui chante au cœur et dans le ciel et sur les eaux."

M. Charles Yriarte, who writes thus sympathetically about modern Venice, is known already in connexion with the subject as the author of a charming work, half history, half fiction, called "La Vie d'un Patricien de Venise," in which he has given a sketch of the social life of the city in its great days. He now comes before us as the illustrator of the history of the place rather on its artistic side; for though his work includes "Histoire," illustration is its main object, and his history is not much more than a summing up, with occasional more detailed accounts of special crises in the narrative. The book must be regarded as illustrative; as the narrative proceeds, we have engravings and woodcuts which bring before us the places and scenes mentioned, from the portrait of Dandolo, and the scene of the death of Marino Faliero, to the likeness of Daniel Manin, president of the Republic of Venice in 1848, and "the last great political name in its history"; the spectacles and frock-coat of this modern Doge contrasting oddly with our associations with the past.

* Venise: Histoire, Arts, Industrie, La Ville, La Vie. Par Charles Yriarte. Paris: Rothschild.

Whether it is possible to say anything new about Venice from an artistic point of view, our readers will perhaps doubt. That M. Yriarte has some qualifications for doing this,—that he has a keen eye for generalising artistic characteristics,—is evident from his remark in the opening chapter as to the abnormal character of things Venetian. Not only is the order of things apparently reversed or confused in the scenic effect of the place, so that "one knows not whether lagune is sky, or whether sky is water," but even "things the most real and solid are paradoxical; in the architecture the solids are carried by the voids, and the exquisite embroidery of Mediæval carving supports halls and palaces of massive walling. All the principles of art are violated, and yet from this there results an art peculiar and charming, which Venice has stolen from the East while putting at the same time her own stamp and impress upon it."

The chapter on the architecture of Venice naturally begins with Torcello, which is rather inadequately illustrated, considering its unique interest, and the author proceeds then to discuss St. Mark's, and the extent and degree of its Oriental connexion in regard to style. He notices some objections to the theory that some of the work was done by Byzantine hands, but concludes, as is inevitable in the face of many of the details of the church, that Byzantine taste, at least, if not Byzantine workmen, must have largely influenced the work.

The crypt of St. Mark, of which we reproduce the illustration, is, we believe, not often visited. It is more distinctly Eastern than any other part of the building, and dates, according to M. Yriarte, from the ninth century, and its close connexion with Byzantine architecture is obvious in the style of the capitals, though the vaulting approaches more to Gothic character. The commencement of the work is attributed to the Doge Partecipazio, in 829, and he left directions to his son Giovanni, who succeeded him in his office, to place in the crypt the remains of St. Mark, brought about that time from Constantinople by Bono, tribune of Malamocco, and by Rustico da Torcello. As the crypt is below the level of the lagune, it became gradually inundated with water, and for a long period all celebration of service in it was consequently abandoned. In 1563 there was an attempt at restoration, which ended in nothing; and in 1604 it was determined to raise the images of the saints that adorned the altar which were then under water, but which were successfully recovered, and deposited in the treasury of the church.

Up to 1800 all attempt at restoration was abandoned, but towards that time, in making some repairs to the high altar of the church, it was found necessary to strengthen the substructure on which it rested, and it was in doing this that the crescent of the patron saint of Venice was discovered (in 1811). Up to 1866 the floor of the crypt was still under water, but at length the engineers, MM. Meduna and Milesi,

contrived successfully to render the crypt watertight by a specially-prepared cement. They opened means of ventilation to keep the air circulating in the crypt, and it is now easily accessible, and is one of the most interesting of ancient remains to be seen in Venice.*

Of the smaller illustrations of details of early Venetian architecture given in the book, we select three. The first is the piece of sculpture representing two peacocks drinking from a font, which is found in the wall

of a palace on the Grand Canal. The connexion of Venice with the East is again significantly indicated by this emblematic sculpture, which is found in nearly the same form at St. Sophia, at the church of the Theotocos, and also at St. Vitale, at Ravenna, an edifice always recognised as distinctly Byzantine in its style and detail. The accompanying illustration of one of the capitals from Torcello, that centre of so much

architectural history, is a remarkable and unusual instance of the blending of Classic and Gothic feeling in detail; the form of the Classic acanthus-leaf being still preserved, but used with something of the freedom and natural growth which characterise Gothic foliage. The other capital is a very elegant and beautiful example of a Romanesque type from the building called

the House of the Apostles; a type still retaining clear traces of its Classic origin, and suggesting a mode of treatment and outline which might even now be further developed into something new and original, as well as suitable, in the design of capitals.

The Gothic period of civil architecture in Venice is well illustrated. Some few of the illustrations have appeared in previous years in our pages; all refer to buildings well known. Renaissance architecture at Venice forms the subject of a separate chapter, which, we may observe, is headed by an engraving of Mr. Wallis's picture of a sailor showing an antique to two Venetian senators, which was exhibited at the Royal Academy under the title "From Naxos," and is given here without, as far as we notice, any recognition of the artist or allusion to his name. The author observes that the very same position between east and west, which led to the adoption of an Oriental taste in the Gothic work of Venice, also made that city, the centre of so much foreign travel and foreign intercourse, quick to take up the newly-awakened influence in classical literature and art. And at the same time it may be said that no city, not even Florence, turned to account the new motives supplied by Classic architecture in so romantic and picturesque a manner. The library of St. Mark has, it is true, something of the staid and formal character which belongs more especially to the forms of the Italian Renaissance practised at Florence and Rome, and, elegant as it is, is a somewhat weak building æsthetically, as it turned out to be practically. But in such a building as the Spinelli Palace we see the most charming and effective combination of Classic refinement with Gothic playfulness and variety, illustrated again in the Palazzo Dario and the Casa Giudetti. No form of window has been more copied, and seems more constantly satisfactory to the eye and the judgment, than that in which, in the Spinelli Palace, the idea of Gothic tracery was carried out with a Classic treatment; and one may well be disposed to ask, why the mere compliment of bare imitation has been paid to this form of window design; why no one has tried to work out from this hint Classic traceried windows with the same elaboration and richness which characterises Gothic tracery. There is, in fact, quite a mine of hints for original treatment, not yet developed or worked out, in this quasi-Gothic Renaissance of Venice, the charm of which even constant repetition has hardly availed to obliterate, and which might well furnish the ground-work and suggestion for a great deal of novel design, eminently suited both to the requirements and climate of the modern cities of northern and western Europe.

Under the chapter on sculpture comes a good deal that might, from our point of view, be put under the head of architecture; architectural decorative design, at least. M. Yriarte draws attention to the special form which sculpture so largely assumes in Venice, that of mural monuments in churches. As a typical example of these he refers to Leopardi's tomb of the Doge Vendramini; and we give his illustration of this singularly elegant and appropriate design, and may append the author's remarks thereupon.*

"The sepulchral monument of the Doge Vendramini, in the church of SS. Giovanni e Paolo, opens admirably the series of works of this kind, which we may class as belonging to the Renaissance. The work is that of Leopardi, who lived towards the close of the fifteenth century, and was already at that time in the full plenitude of his talent. This same Leopardi was a worker in metal (*fondeur*); it is to him that we owe the admirable bases of the masts which rise before the portal of St. Mark's, and carry the standards of the Republic. A distinctive element in the Renaissance period is this multiplicity of talent among the artists; this one was professedly a metal-founder, since it is to him that we owe the execution of the celebrated statue of Colleoni in the Piazza Giovanni e Paolo, designed by the famous Andrea Verocchio; nevertheless, though a practical workman, he showed himself great enough as an artist to be able to claim, both as his composition and execution, the famous candelabra of the Academy; the tomb of Vendramini, which is no mere sepulchre, but a monument complete in all its conception and distribution; the direction of the construction of S. Justinia at Padua; and a considerable number of works demanding at once the knowledge of the architect, sculptor, and painter, without taking into account his practical acquirements. At the same time that he cast the Colleoni horse, he sculptured the exquisite pedestal upon which it stands, proud and fiery; and neither the Lombardi, nor Bergamesco, nor Antonio Rizzo, could go further than he in science of arrangement, taste in composition, certainty of execution, and profound knowledge of modelling."

"This funeral monument of the Doge Vendramini is one of the most pure in taste, perhaps, of all Venetian works of art; it has all the nobleness and grace of the antique, with a restraint, a reserve, in the midst of variety, which is perhaps superior to Greek art, presumptuous as such a judgment may appear. The science of proportion is here at its height, and it is impossible, among the pompous and disordered compositions of the eighteenth century, and the dry productions of the previous centuries, to restrain our admiration for the great period when a metal-worker of genius was capable of designing such a *chef d'œuvre*, of putting it into execution, and, working as a sculptor on his own architectural composition, of adorning it with such a number of figures, allegorical statues, portraits of patricians, theological virtues, images of the Virgin and Saints, chimeras and symbols which go so well with the monument, that one feels at once that one sole thought and one inspiration of genius have created this work, carried into execution by one sole hand."

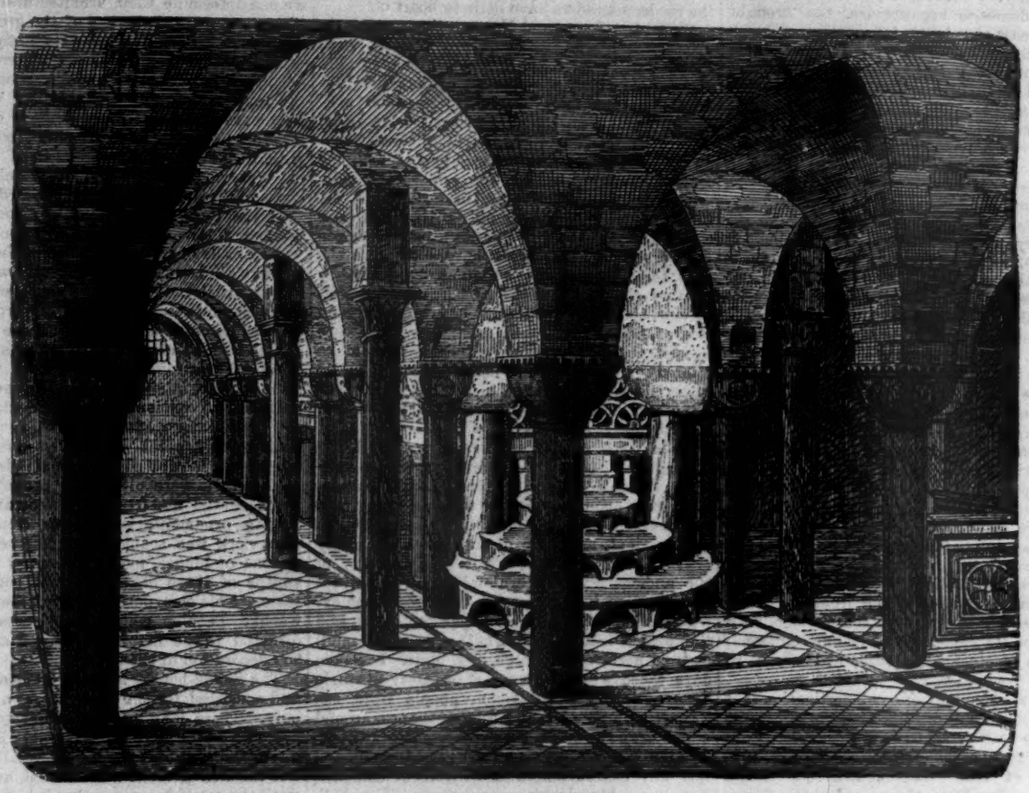
Perhaps M. Yriarte's criticism, or rather applause, is a trifle too enthusiastic; but of the great merit of the monument in regard to general conception, and the spirit and variety of the details, there can be no question; and the fact as to the *status* and occupation of the artist is, as he says, highly significant of the healthy state of art at the period. In a subsequent page the author draws a contrast between such a monument as this and the more pompous and pretentious monumental works of the same kind in the decadence of the Renaissance:—"Ces immenses *machines*, dont le monument du Pesaro des Frari est le plus curieux type, touchent au délire d'imagination. L'orgueil humain n'a plus de borne, il lui faut des mausolées Babyloniens." The specimen to which he refers, however, is a modest work of art, so far as idea and conception are concerned, compared with some of the "immense machines" which are to be found in our own Abbey, which, nevertheless, are not without a certain historical interest.

The separate chapters devoted to the account of the Lombardi, Vittoria, and Leopardi are among the most interesting portions of the letter-press, and constitute a good summing-up, in a not too diffuse form, of the main facts concerning the lives and works of artists with whom England (and perhaps France) is less familiar than with some names of no greater real eminence. In the chapter on Leopardi some particulars about the celebrated chieftain Colleoni, whose statue he cast, are illustrated by a fac-simile of the portrait which forms the frontispiece to his life, by Pietro Spino, and which is by far the best and most characteristic of all the illustrations in the book. It is a truly remarkable head, with an almost savage expression of force and determination. In general the illustrations of the smaller details are better than the views. Those given of some of the well-known palaces on the canal, though effective in general treatment and free in style, are too sketchy and uncertain in regard to the architectural detail. The book is not yet completed, what we have been noticing being, we believe, about half of the whole issue contemplated. It will form, when complete, a very comprehensive survey of the history and the character of Venice as a city, and a very convenient collection of illustrations of Venetian art and architecture, whether as a memorandum of past visits or a hint for future ones. The large number of handsome and expensive works of this class which are got up in France, and which, we are assured, find a large sale and prove a profitable outlay, is certainly remarkable. Such a work would be an almost certain loss in this country, or would only be published by subscription.

An Important Industry Threatened.—According to a Newcastle paper, the craft of railway spring-makers is threatened with a very serious competition. A new circular spring has been invented; it is made entirely by machinery, and is said to be free from many defects of the present hand-made springs. The new springs are made of solid round bars of steel, highly polished, cut and bent into elliptical forms, and bound together in sets, to form springs. Four or five bars form the top and bottom of each spring; and it is intended as a further improvement to have a spiral spring, also machine-made, to be placed at the centre between the top and bottom set of springs. This would act as a duplicate; in case of accident it would support the entire weight of the carriage.

* A detailed account of, and criticism on, the architecture of the main church of St. Mark will be found in the *Builder*, vol. xxvii., pp. 27 and 77.

* See p. 238.



CRYPT AT ST. MARK'S, VENICE.

PROFESSOR E. M. BARRY ON ARCHITECTURE.*

DOMESTIC ARCHITECTURE, TWELFTH CENTURY.

LAST session, I asked you to give some consideration to the domestic architecture of the ancients, to their hearths and homes, and to the details of their every-day life. Fortunately for us, there exist abundant materials for the study of this question in the ruins of Pompeii and Herculaneum. We saw there how the Romans followed Greek precedents, although with important differences introduced by themselves, both in ornamentation and construction; Pompeii being indeed almost a Grecian city, having been originally founded by colonists from Greece. This peculiar circumstance does not, however, wholly account for the prevalence of Greek traditions to be seen in the ruined cities, for the plan of the houses there adopted was common with the Romans in every part of their extended empire, and was not without influence, as we may hereafter have occasion to recognise, in the far-away land of the then savage Britons.

When we come upon the traces of Roman work in these islands, we find that the proud conquerors of the world, in crossing the seas, and changing their sky, had not lost that spirit of allegiance to the customs of Imperial Rome which distinguished all their life, whether public or private. Here, at the extremity of their vast organisation, the pulse may have beaten feebly, but it was in unison, nevertheless, with the stronger impulses of Rome itself. We seem, indeed, while noting the slender architectural remains of Roman work, now and again discovered amongst us, to witness the last expiring effects of that wonderful civilisation which could do much, but not all; which could inculcate the virtues of the patriot and the citizen, but which needed the vivifying influence of a purer faith to bring out the duty of man to man, with all its far-reaching consequences, social, political, and architectural.

The later Roman did not adopt forms from his conquered enemies. He rather imposed his own upon them; and this, not only in regard to details, but also as to principles of design. He followed Greece indeed, but he added ideas of his own, and had imperfect sympathy with the beautiful execution, and the fastidious delicacy of refinement in which the Greek architects delighted. With the semicircular arch came the frequent use of curved and circular forms in the plans and sections of buildings. Thus, the Basilicas, as you are aware, had frequently semicircular ends, or apses, which proved the forerunners of the choirs and chancels in Christian churches. In the splendid ruin at Rome, known as the Temple of Peace, you farther see in its curved and vaulted roofs the application of the arch to the transverse sections of such buildings. The perfection of the application of this principle was, of course, the dome, the crowning glory of Classic architecture. The Romans, while starting from Greek art, added to its forms, changed its decoration, and which, gaining freedom, lost in purity of taste. The use of the arch enabled them to exercise greater boldness in construction, and the massive ruins of their baths, aqueducts, and public works, have justly excited the admiration of succeeding ages.

The decay of Roman architecture was sudden and complete; and when we take leave of Pompeii, and of the tawdry finery of the debased and falling empire, we come upon a period of pause and interregnum, out of which issued the glories of Mediæval art.

In prosecuting our inquiries into Mediæval art, and comparing it with its Roman precursor, it must be remembered that in the case of Pompeii and other ruins, we have examples of a far older civilisation than that of the twelfth century, which we are about to discuss. Pompeii was destroyed as early as A.D. 79, and it is interesting to trace in its remains principles of design and arrangement which we shall come upon elsewhere in our investigations of the architectural works of the Goths. Thus, the atrium, the distinguishing feature of the Roman house, foreshadowed, in some respects, the hall of northern climes. Here, as in a public place, the Roman Patrician received his dependents, and transacted business. Around it were grouped the cubicula, or separate bedrooms, the private apartments, and the women's chambers, an arrangement far in advance of the domestic provisions of the Saxons and Normans in this country. Although, in the later days of the Roman Empire, corruption of manners had led to profusion and extravagance, the Roman gentleman had, at least, inherited maxims of moderation and frugality, and his domestic arrangements give no indication of the rough and profuse hospitality which prevailed in Mediæval times. The atrium might serve many of the same purposes as a Gothic hall, but the modest dining-room of a Roman house, with its triclinia for a few friends, or members of the family, bore no resemblance to the Gothic banqueting-room, with its roaring fire, its wassail bowls, and its miscellaneous assemblage of roysterers. He had, moreover, no reason to surround himself with walls and battlements, or to keep bands of armed retainers in his train. A free citizen of a free country, he reaped the advantages of a settled Government and well-ordered system of public affairs, in which it was his right to take part.

All the circumstances of the life of the day have left their effects on the architecture of Pompeii, as I attempted to describe to you last year. We saw then how much the Romans lived in public, in their temples, in the Forum, the basilicas, the theatres, and the public baths, noting, at the same time, the spirit of cruelty which lurked beneath the varnished surface of Latin civilisation. This was the spirit which delighted in the sufferings of gladiators, and stained the arena of many an amphitheatre with the blood of Christian martyrs. It was one of the many signs that the olden glories of Rome were gone, and that the time was come for a new and purer system. This was arrived at, as you know, through bloodshed and disaster. The barbarians who conquered the great empire of the world were no gentle reformers, but they nevertheless laid the foundations of mighty and beneficent changes, the consequences of which are even now scarcely exhausted. I only claim your attention, now, for a small part of these changes, as they have affected architecture; but I purpose to ask you to continue the inquiry which I initiated last year, into the domestic architecture of our ancestors.

Leaving, therefore, the works of the Greeks and Romans, we shall turn our attention to our own country, and endeavour to trace the various steps which were taken by our forefathers to provide themselves with handsome and comfortable dwellings. This inquiry is not unattended

* Second lecture: delivered at the Royal Academy on Monday, March 5th.

with difficulty. Mr. Parker, in his admirable works on domestic architecture, has brought together a mass of valuable information, of which I shall gladly avail myself; but we cannot expect to find as many materials for our present purpose as those which exist so richly around us, in connexion with ecclesiastical architecture. This branch of the subject has been so fully discussed of late years that it may, perhaps, be desirable to leave it for awhile, and turn our attention to the scarcely less interesting questions which I have indicated. The study of domestic architecture has, indeed, as suggested in my introductory remarks, a special interest in these days, when the spread of manufactures has led to the aggregation of multitudes in our great towns and hives of industry. We recognise, as one of the chief problems of our time, the urgent necessity of providing healthy homes for the people. Can nothing be done to bring to bear upon these the light of beauty and art? This is the difficulty with which artists have to contend, and though we cannot get from our predecessors any absolute instruction on the subject, we may, at least, endeavour to profit by their experience; to study the principles on which they worked; and to consider whether they may not serve as lights to our path. Not that we are to suppose that they were always successful any more than ourselves. Their difficulties, moreover, were not ours, and we utterly misread the lessons of history if we do not bring to bear upon them the freedom from prejudice, the patience, and the common sense which, with the stores of information now at our command, we in the nineteenth century, are bound to cultivate.

We find at the outset of our investigation that the Romans certainly did not bring these qualities to bear on their domestic architecture in this country; for, as far as we can tell, the plans of their dwellings here did not materially differ from those in Italy. These, again, were almost copied, as we have seen, from Greek plans, suitable only for a hot and dry climate. Even in Italy such an imitation must have led to inconveniences, and it is difficult to imagine anything more uncomfortable, in a northern climate, than a Greco-Roman house, transplanted from the banks of the Ilyssus or the Tiber. Take, for example, that important part of it, the atrium, to which I have just referred. This was open, as a rule, though often temporarily protected, and sometimes, but rarely, crowned with a permanent roof. Necessity must have prescribed the latter arrangement for dwellings in this country; but, in other respects, the distribution of parts, which the Romans had reduced to a system, was the same here as in other parts of their empire. The atrium, when covered in, and lighted by a clearstory, or by windows, may be regarded as the type of the hall, which became a feature in all considerable buildings in Mediæval times. The Gothic architects at first adopted the simplicity of construction in their works generally, which was a characteristic of Roman work. With a freer run of the arch, came, later on, a boldness of construction which the Romans never approached, a freedom, which was, indeed, sometimes indulged in at the cost of solidity. Wherever we find traces of Roman modes of building, in this country, they are of a substantial character. The mortar, used very plentifully, and often combined with pebbles and small bricks as concrete, deserves special notice, as being the forerunner of a system of building now much used by engineers in those vast works which are entrusted to them, which may rival the colossal achievements of the Romans themselves. The qualities of concrete, the limits of its useful application for building houses, and the right method of treating it architecturally, are questions which the young architect will do well to study. The Romans obviously had great confidence in their mortar and concrete; they did not practise the art of moulding brickwork, and employed bricks, or rather tiles, but seldom in any great architectural work. The Roman brick, as we term it, is more like a paving tile than a brick, and is not more than an inch, or an inch and a half, in thickness. You will find it in most Roman works, and in a great many Anglo-Saxon and Norman examples erected during the eleventh and twelfth centuries. The materials used were much the same as at present, with the exception, of course, of what I may call the engineering development of iron, which it has been reserved for us to witness. Apart from this addition, the science of building has scarcely advanced from the days of the Ptolemies, and the modern builders have little to boast of.

We find in Saxon and Norman times masonry, plasterwork, timber, iron, lead, bricks, and, though sparingly, glass. Some of these materials were used in their simplest forms, but by a process of gradual improvement they each ultimately became an example of artistic progress, which, perhaps, culminated in the thirteenth century. The more solid constructions of masonry were at first reserved for important public works, such as castles and minsters, as, for example, Rochester Castle and St. Alban's Abbey. After the departure of the Romans, the Saxon invaders of Britain would naturally make the best they could of the buildings of which they became the possessors. With some modifications, therefore, the Roman houses, which then existed, became their dwellings. As repairs were needed, changes arose, the old houses would be altered or pulled down, and their more solid materials used elsewhere, a circumstance which often explains the presence of what we call Roman materials in buildings of a later date.

At a time when roads scarcely existed, the carriage of heavy articles must have been very costly and difficult, and our forefathers had, therefore, very good reasons for treating the Roman works about them as quarries. It was thus that the original structure of the church and abbey of St. Alban was built from the remains of the ancient city of Verulamium. The private houses were less fortunate. For them the expense of durable materials was too great, and the people had to live in huts of wood or mud, covered with reeds, thatch, or shingle. In Saxon days there was little comfort or safety in single dwellings, and the common people were the "hearth-men" of their lords, or thanes, around whom they clustered, and with whom they lived. The thane lived in a semi-patriarchal state, and not only shared his table with his dependents, but even his sleeping-apartment. The hall, from its importance in the dwelling, gave the name to the whole structure. It was the direct successor of the covered Roman atrium, and, like it, was the central feature of the house. In it the lord and his dependents took their meals by day and their sleep by night. The master had, indeed, sometimes an apartment of his own, but even this was often shared by him with his principal retainers. Chimneys there were none, and when there was a fire it was lighted in the middle of the hall, and the smoke was left to find its way through a hole in the roof, or by other openings as best it could.

It was by slow degrees that these simple arrangements were improved. Houses were used for protection from the weather,—not as *homes* in anything like our sense of the word. They were the results of the simple requirements of a rough and hardy population, living much out of doors, and given to war and sports.

At the time of the conquest of Britain by the Romans, there is no reason to doubt that the latter found in these islands a race of active and vigorous people, well inured to hardship, and skilled in all warlike exercises. Some have thought that the introduction by the conquerors of luxurious manners and habits tended to enervate the Britons, and so to incapacitate them from maintaining their freedom in their subsequent struggles with other invaders. There is little doubt, however, that a hearty taste for field sports and manly pursuits has always prevailed in this country. Rowing, swimming, archery, hunting, wrestling, and such like pastimes, were common, and we have recorded, in one case, the following boast of a Saxon thane, named Kolson. "I know," he says, "how to play at chess; I can engrave Runic letters; I am expert at my book; I know how to handle the tools of the smith; I can traverse the snow in skates of wood; I excel in shooting with the bow; I use the oar with facility; I can sing to the harp; and I compose verses." It is not to be supposed, indeed, that such a list of accomplishments was common; but such a chronicle may serve to indicate to us what was the ideal aimed at in the education of a Saxon nobleman. His followers would naturally emulate his prowess in the sports of the field, though they would have no chance of imitating him in his knowledge of letters and other softer accomplishments.

From their simple mode of life, the Saxons did not expect elaborate provision for their comforts. They gathered around their lords, and were easily contented with food and shelter. The houses of the time were, therefore, of corresponding simplicity. From the perishable nature of their construction few remains are left by which we can determine their architectural character. We can suppose that some of the greater thanes may have desired to display their importance by decoration, the woodwork may, therefore, have been occasionally carved with representations of the animals, fishes, and reptiles with which they were familiar from the sports of the field, and these may also have been painted and gilt, with a certain rude magnificence. Spoils from enemies would also grace the "hall," and encourage the armed retinue of the lord.

Gradually, as time went on, the hall would become more architectural, wooden posts gave way to walls of stone, and the thatched covering to more solid wooden roofs, covered with shingle, stones, or tiles. In the more important buildings, stone columns took the place of wooden posts, and semicircular arches carried the roof above, adding both to convenience and to architectural effect. The capitals and bases of the columns often indicated their Roman parentage, by a rough imitation of ancient forms. Windows became common, though glass was as yet too great a luxury for general use. The openings were formed by stones placed as lintels, and also angle-wise; were ultimately arched in, and at times carved and frequently decorated with the zig-zag ornament, which now came into use. Iron work was scanty, but some beautiful specimens of hinges, locks, &c., show us that the smiths of those days possessed both skill and taste. This was perhaps only natural among a warlike people, whose first cares would be directed to the manufacture, and after that, to the decoration of their arms.

The Saxon houses followed Roman precedents, and consisted, for the most part, of a ground floor only. There may have been exceptions in the one case as in the other. That the Romans used an upper story we know, especially in cities; but the arrangement was unusual, and it was not until the twelfth century that it became common in English houses. We then find the buildings planned of a rectangular form, longer one way than the other, and divided into two separate stories by a floor. The upper story was the hall, and the room under it was vaulted, and approached by a different entrance. The stairs to the upper story were, in early examples, arranged in flights outside the building. Afterwards the stairs were covered, and some of you may know the beautiful staircase at Canterbury of this description. Attached to the hall, and behind the dais, was the principal chamber, which was called "solar," or "sollere," a name supposed to be derived from "solarium," the word used by the Romans for the upper story or terrace, where the inmates went to enjoy the sun. It was only by slow and gradual steps that glass began to be used for windows, which were at first filled with canvas, or some such material, or closed only with shutters. The openings were small, and often mere slits in the wall. Inside they were splayed widely towards the apartment. Wooden shutters, internal and external, were fastened to the walls by iron hooks. In some instances they were hinged at the top of the window, and opened outwards, being kept open, when required, by props. The interior of the window was finished so as to form a stone seat; and when the wall was thick enough, double seats were contrived transversely, as is shown by one of the diagrams before you in the case of Aydon Castle.

In passing from Saxon to Norman work we find a gradual transition. The general distribution of the plan remained the same, while new and improved details took the place of more primitive constructions. The Normans may be credited with more fastidious tendencies than the conquered Saxons, but it was not at first that their influence became visible. The chief care of the conquerors was to secure their footing, and it was to military, rather than to domestic architecture, that they first devoted their energies. The Saxons had but few fortifications, an embattled wall surrounding their homesteads being the usual mode of exceptional protection of this nation. The Normans, however, soon indicated the nature of their tenure of the country by the erection of strong fortresses, with towers, walls, and gateways, recalling the structures of their own country, rich in all the resources of military architecture. In these castles nothing was neglected to give them strength, so as to enable them to stand a siege, whether they were attacked by the subject population or by rival lords or rebels.

In some of the later examples are found chimneys of good design, and even mangers for

the horses, massively constructed in stone. As regarded houses, however, of small importance, the Normans followed the custom of the country, and building in stone was a rare and costly exception to the general rule. Their style, which is familiar to most of you, is based on the Romanesque, an imitation, more or less, of the forms of old Roman art. Their work may be roughly described as that of the twelfth century, during which the principal Norman buildings in this country were executed. If the remains of their domestic architecture are scanty, we must remember that the latter can only flourish in times of tranquillity, and public order was at this time far from secured. The house of the great lord was, in every sense of the word, his castle. Within its walls, and around them, dwelt a motley host of armed retainers, scorning commerce and the arts of peace. The tillers of the soil lived in huts, and if some few Saxon thanes kept up a sort of independence, it was but fitful and rare, and the Norman influence retained throughout the country its hardly-won predominance. At Windsor, Rochester, Norwich, Pevensey, and many other places, you may find specimens of the work of this time, illustrating the military architecture of the Normans.

In respect of domestic work, we find the hall continuing to dominate the plan. It was the general living-room as before, and the occupants often slept in it. Adjacent chambers gave, in important cases, the additional convenience of separate sleeping-apartments. The Latin of the period gave the title of "aula" to the great room, and the palace of the sovereign was known as "aula regis." By the French, the room was styled "salle," and the Romans naturally brought this designation with them. From these names, the transition is easy to our own word "hall," which in time came to be applied not only to the principal room, but to the house itself of an English nobleman or gentleman. As you are aware, it still remains the rule in many parts of the country, as, for instance, in Lancashire and Cheshire, where every country-house, of any pretensions to importance, is termed a "hall."

The halls of later times were often of great magnificence, and were sometimes on a grand scale, as at Westminster. The roof was frequently supported by posts of wood, or by columns and arches of stone. In certain cases, these supports were in the centre, and supported the ridge of the roof. More frequently, however, they were placed at the side, adding an aisle or aisles to the great room. The kitchen was in a separate building, often detached. The culinary arrangements were not elaborate, and were often performed in the open air. This will appear a natural arrangement for the rough cookery, which piqued itself on roasting oxen whole, and indulged in similar achievements, remarkable rather for magnitude than delicacy. A courtyard separated the kitchen from the hall. Around it were grouped the subsidiary apartments, for larder, buttery, scullery, &c., and the dinner was taken across to the hall, through the open air. In some buildings the kitchen and buttery adjoined the hall, very much as we now see them in the college halls of Oxford and Cambridge. In such cases there was often a vestibule, or entrance corridor, cut off from the hall by a screen, according to the arrangement which is still familiar to us in those examples. The kitchen and buttery would thus open into the vestibule, and the inconvenience of carrying the dinner through the open air was avoided.

The plans above described were, as far as we know, the usual arrangements of the domestic buildings of the Normans. The hall of the sovereign differed in magnitude, rather than in general design, from the manor-house of his lords and vassals. Some halls were, of course, more magnificent in adornment than others, but all seem to have had the same essential features, and the type, thus adopted, has influenced the plans of our English houses during the succeeding centuries. The great hall is now, indeed, the luxury of the rich, in modern domestic buildings, but this arises from the love of privacy which has distinguished later times, and from the consequent preference of comfort and convenience, to the ruder, if more stately, arrangements of ancient days.

Before proceeding to point out to you any remains of Norman dwellings, it may be well to devote a short time to point out to those of you who are not architects some of the characteristic details of the architecture of the period. In so doing, it is not necessary to confine ourselves to secular examples, for the features which illustrate the style were, as a matter of course, common to all buildings erected at the time. The distinction between the architecture used for ecclesiastical, and that employed for domestic purposes, is altogether modern. In Mediæval times, the workmen knew but one style of design, and used it for all purposes. The building to be erected might be a palace, or a barn; a church, a castle, or a dwelling-house. It might be plain or decorated; dignified or severe; but the style was the same. As a consequence, we are able to recognise the work of the time, by almost any relics that are left to us.

We have seen that the Normans followed the traditions of simplicity left to them by the Saxons. Their works were, at first, indeed, undecorated, even to baldness; but they added gradually an amount of decoration which renders their architecture (as, for example, various Norman doorways) often ornamental in the highest degree. The mouldings were at first few, simple, and such as could be easily worked. The columns were of great size when they were used to support arches, although the attached shafts to doorways, windows, and arcades were of moderate dimensions. The arches were semicircular, of plain mouldings, or even with members plain on plan, with square angles. The doorways were often deeply recessed, and very effective, with attached shafts, and bold mouldings, sometimes highly enriched. In the ornaments of the latter, the Romanesque influence may be clearly traced.

The same remark applies to the arrangement of the windows when anything more ambitious than a single light was attempted. In such cases, the mullion and tracery of future days were prefigured by the arrangement of a double arch springing from a central shaft, with capital and base of its own, just as we see it in the Romanesque and Gothic architecture of Italy. In the latter, the columns are frequently twisted, and sometimes decorated with shallow flutings. The same method of ornamentation is found in Norman work, in which the large columns often have their surface ornamented with flutings of a similar character, in zigzag or spiral lines. The zigzag ornaments of various kinds in which the Norman architects delighted, may also be traced to a similar source. These zigzag enrichments are often of great beauty, and sometimes of great complexity, being so arranged as to interlace with one another in a very complicated manner, as may be seen, for example, in the archway on College-green, at Bristol.

The large columns, from being circular or polygonal on plan, became gradually clustered, with more or less elaboration, thus paving the way for one of the most graceful features of the succeeding styles of Gothic art. There is, I think, a special beauty, however, in the plain circular columns of early days. It is essential in a column that it should not only be adequate in fact, but also obviously sufficient for the due performance of its duty, which is to support a weight. This office was well discharged by the plain and sturdy Norman columns, and it may be doubted if the refinements of later days, with their clusters of numerous vertical shafts, sometimes with carved mouldings between them, did not involve some compromise of principle.

The early Norman arches were semicircular, sometimes a little stilted, but never pointed, except when they intersected, and until the transition to Early English had begun. They were of moderate dimensions, and resting, as they did, on massive walls and pillars, were not calculated to exercise that destructive thrust upon the building which so often deranged the plans of succeeding architects.

Norman buildings have, however, suffered from defective construction of the apparently solid walls, which are often built of rubble, and only cased with stone. In some cases also, as at Peterborough Cathedral, the abutments have been insufficient, and the thrust of the arches has proved too great for portions of the walls. In the case of abutments, the science of building was not far advanced, and the Norman architects relied little on buttresses, which were broad, and of small projection, often resembling pilasters rather than buttresses, and here recalling once more the Italian type of work. The boldly-projecting buttress, with its wealth of decorative construction of arch and pinnacle, was not as yet introduced, but turrets were not unusual, and they terminated frequently with high pyramidal roofs, thus indicating the development of the spire in the future.

Vaulted roofs were only occasionally employed, but at Canterbury we have a good specimen of a late Norman groining, carried out by a Frenchman, William of Sens, who was, of course, well acquainted with the more frequent arched roofs of his own country. A beautiful feature in Norman buildings was introduced by the construction of arcades, sometimes complete, but often applied to the walls, so as to form a surface decoration. We have a good example of the perfect arcade in the staircase at Canterbury, to which reference has already been made, and numerous instances exist of the wall arcades, which sometimes served also as shallow niches. Corbel courses, with intersecting arches, are often to be met with, and are once more a feature in common with Romanesque work.

As the style advanced, the decorations increased, and gave richness of effect to the portions of the building in which they were used. This richness was enhanced by the contrast with the simplicity and general plainness which still characterised the great masses of the structures built by the Normans. The large plain spaces of the walls were enriched by surface decoration, consisting of diapers and interlaced patterns of much beauty, and round panels or bosses were employed, to add a further ornament in the jambs of recesses and the soffits of arches. The earliest designs of rough zig-zags, with diagonal and rectangular ornaments, were such as could be executed by masons with little skill, and by the use of the axe. The later work would tax the chisel of the advanced workman. The columns had capitals of a peculiar character, with a square abacus. The section of this member was almost uniform, and is composed of a large hollow, with a broad fillet above it. Between the fillet and the hollow there is often a little sunk channel, which is a common sign of Norman work, and gives to this apparently very simple moulding a certain piquancy of effect. The rough and early ornament was generally shallow, but afterwards we find details more elaborate, and carved with great effect of deep undercutting. You are, doubtless, familiar with the ordinary type of Norman capitals, which has been called scolloped, from its resemblance to a scollop-shell; but this is only one form of those commonly used. In others, we find, again, traces of the origin of the style in the obvious imitation, in a manner more or less skilful, according to circumstances, of the volute in the Ionic, and succeeding styles of Classical architecture. This feature is very clearly seen in the very beautiful capitals in the choir of Canterbury Cathedral, and here may be found a further reminiscence of the Roman capital, in the cutting off of the angles of the abacus. These capitals are, however, of so late a style as to be properly called Transitional, rather than Norman. They are among the richest examples of this important feature, and contrast greatly with the earliest and simplest form, known as the cushion capital, which is developed from a square block, by cutting and rounding off its lower corners.

The base mouldings were plain and severe. Sometimes an imitation of the Tuscan and Attic bases of Norman times is evident. They are usually placed on a plinth, or sub-base, which serves a constructional use, and adds to the apparent solidity of the columns or piers. The latter often supported wooden roofs, for Norman vaults and groinings are not found until the style was far advanced. The barrel vault was naturally the first form used. It came naturally from the employment of the arch in windows and doorways, which, with their deep recesses, are, in fact, specimens themselves of barrel vaulting. The addition of flat-arched ribs soon followed, and then a plain mode of groining without ribs. Ultimately the latter feature was introduced, and from diagonal ribs the step was not long or difficult to the employment of the pointed arch.

Arched vaults, however, of great span are not found in Early Norman work, and where the width was considerable a wooden roof, and ceiling were employed, as at Peterborough Cathedral. Such ceilings were intended to be painted, and at Peterborough we see the original design carefully restored. However interesting such decoration may be in an archæological sense, it must be confessed that it is very inferior to even the simplest form of vaulting, and it appears to be especially unsatisfactory when considered with reference to the plainness of the work below, the massive piers and arches of which would seem to be justified only by the necessity for supporting a roof equally solid in character.

In the later examples of Norman architecture, the intersecting arcades of which I have before

spoken, became common. The two semicircles cutting each other produced an acutely-pointed arch. The ribs of the vaults developed a similar form, and the pointed arch, with its almost boundless facilities for elaboration, became an accepted fact in English Mediæval architecture. The carver's chisel was freely used, and sculptured decorations became frequent. Round and pointed arches were found in the same building; the tooth ornament made its appearance, and everything was ripe for a new transition. We will, therefore, leave at this point the description of the peculiarities of Norman work. I hope it has been sufficient to enable you to apply it in practice, so as to distinguish Norman details from those of later times, further allusion to which I will defer till a future occasion.

For examples of the various details which I have endeavoured to explain to you, I have referred, in some instances, to ecclesiastical buildings, as being the most important and best preserved specimens of the style which are left to us. They apply, however, to all buildings of the period, to a greater or less degree. In those of the Saxon era, erected before the Conquest, we find also some marked peculiarities, which may be now further mentioned. One of them relates to the manner of constructing masonry at the angles of the buildings, by the introduction of long and short stones alternately, the walls themselves being constructed of small stones roughly shaped. This has been called "long and short work," and is not to be recommended as good masonry. It is, indeed, so much at variance with the tradition of the craft that some archæologists have supposed that it was introduced by men familiar with the plane, rather than the mallet and chisel; and as the Saxons were, as we know, well accustomed to wooden construction, this long and short masonry has been stigmatised as "carpenters' work."

Another peculiarity is found in the baluster-like form of shaft introduced in windows and arcades. There is a good specimen of this feature in the tower window at Earl's Barton, in Northamptonshire. The shaft is here obviously taken from a baluster, probably of Roman origin, and would also be more appropriate for a wooden construction than for a building of stone.

The changes which the Conquest introduced brought about the Norman style of building, and the circumstance that the change was complete, though gradual, seems to show that everything was ripe for such a consummation, and that the so-called Saxon architecture had served its day. We know that our forefathers had little of that respect for antiquity which most of us at least profess to feel. Although recognising precedent, they were fully persuaded that they were advancing and gradually improving upon the forms of the past; they had, therefore, no scruple in destroying the latter to make way for newer constructions of their own. Thanks to greatness of scale and to solidity of work, we possess numerous remains of Norman buildings, for they have not proved easy to be pulled down, and are too large in their parts to be easily adapted to the lighter and more elaborate architecture of succeeding times. At Winchester, a not very successful attempt was made to case the Norman piers with moulded stonework of a later date. The effect was heavy, and not such as to encourage similar operations. The work, however, is interesting as showing the daring spirit of those days in matters architectural.

We have at Lincoln some considerable remains of domestic work in the buildings known as St. Mary's Guild, or John o'Gaunt's Stables, and the Jew's House. Both of these buildings are interesting, and deserve some explanation. The former is the more extensive, but is modernised by the addition of a later roof. It possesses a handsome cornice, and has the flat pilaster-like buttresses, typical of Norman work. The entrance doorway is decorated with ornaments of the later or Transitional period, and the windows are partly Norman, and partly Early English, in their details. There is a doorway of the square-headed trefoil form, and the windows are coupled together with a shaft between them. The bricks are of the thin tile-like description, which were used by the Romans. A fireplace, with a chimney, exists in the upper story. The back of it is formed of thin bricks, placed edgewise. The whole presents to us a valuable example of Norman domestic work.

Lincoln is rich in such remains, the most perfect of which is that already referred to as the Jew's House. It is small, and has but two rooms, though others may have originally existed. The chief interest it possesses arises from the richness and characteristic design of the external ornamentation. We find in the latter many of the details which I have already pointed out to you, as illustrating the style of the time. There is first, the deeply-recessed doorway, with its shaft, and double zig-zag archivolt. The archway over the door is made use of in a curious manner to support the fireplace and chimney belonging to the upper story. The chimney itself has been modernised. The name of the Jew's House may possibly be a misnomer, but if not, it is remarkable as being indicative of the position of the Jewish people in England at this time. It is curious, therefore, that by tradition it should be ascribed to a member of the Jewish race, too often despised and ill-treated. They were, however, as we know, powerful at this period, as they have ever been, by the possession of wealth, although not daring to display the same too openly. The cruel manner in which King John dealt with a Jew capitalist, by extracting his teeth until he yielded to extortion, has often been referred to.

If the house we are now discussing was in reality the dwelling of a member of the same ancient race, we may be sure he must have been a personage of wealth and importance, for such houses were very rare in the twelfth century, and the decorative character of its architecture marks it out as an exceptional instance. The windows deserve attention, particularly the two-light window, with its double order of mouldings. We find here the characteristic shaft as a mullion, and the upper part of each light is made square, as is frequently the case with Norman openings. The small window with a trefoil head, and a pointed arched drip-stone or label, is no doubt a later addition, and the lower part of the elevation is altogether modernised. The principal chamber was evidently on the first floor.

The peculiar treatment of the arched doorway, and chimney supported by it, is found in another house, near to the Jew's House, so that it was probably a favourite expedient in the locality. We see by this interesting monument, first, how easily, and yet how faithfully, the Normans applied to domestic work the details with which we are familiar in their sacred buildings. We notice, secondly, that we are approaching the period when men began to display some care for architectural beauty in their dwellings. We have left behind us the plain wooden huts of the Saxons, and are presented with a style of solid construction and decorated masonry.

It must not, however, be supposed that such houses were common, for up to the time of Stephen, and even later, the domestic buildings of our towns were constructed of wood, and in London we know, from the destructive effects of the Great Fire, as late as in the reign of Charles II., that the wooden mode of building still existed, even at that comparatively recent date. The municipal authorities, however, did their best to encourage the citizens to build in a more durable way, and as a precaution against the spread of fire, to use stone instead of wood.

In the days of Richard I., certain definite regulations were laid down in this respect, and were contained in a document known as the "Assize" of 1189, and published in Mr. Parker's work. In order to facilitate the change from wood to stone, we find various privileges accorded to the improvers, one of which savours of confiscation, for it provides,—"If any one would build of stone, and his neighbour, through poverty, cannot, or perchance, will not, then he shall yield unto him desiring to build 3 ft. of his land, and the other shall make a wall upon that land, at his own cost, 3 ft. thick and 16 ft. in height." Party walls have been enormously increased in height since this regulation was made, and it would have been well for the solidity and comfort of our houses if they had not, at the same time, decreased in thickness.

The regulations of the "Assize" refer in great detail to the erection of party walls, but they say little about the fronts of the houses towards the streets. The materials for such fronts, therefore, continued to be chiefly of wood, as being cheaper than stone, and more convenient in reference to the prevailing habit of gaining space in the upper stories, by projecting stories over the ground-floor shops or rooms. In spite of all regulations improvement was slow, and destructive fires frequently occurred. In London there was a serious outbreak in the reign of Stephen, and another in the reign of King John, in the year 1212. After the latter event the rules, which may be described as the origin of our Building Acts, were revised and strengthened. One of the new rules runs thus:—"Whosoever wishes to build, let him take care, as he loveth himself and his goods, that he roof not with reed, nor rush, nor with any manner of litter, but with tile only, or shingle, or boards; or, if it may be, with lead."

All wooden houses which imperilled their neighbours, by causing danger from fire, were to be pulled down by the aldermen and their assistants, and before every house there was to be a tub, either of wood or stone, kept constantly full of water. The removal of dangerous houses was not evidently thought a difficult task, for every alderman was to be provided, under pain of a fine, with "a proper hook and cord," and with these simple implements the houses, or hovels, were to be pulled down, in a summary manner, on their condemnation.

The wages of the different classes of building workmen were fixed, and orders were issued to coat with plaster, or a kind of concrete, the roofs previously covered with reeds or rushes. Special directions were given as regarded the cook-shops, which were the eating-houses or inns of the period. Mean sheds had arisen round these cook-shops, and as they were considered dangerous, they were marked for their destruction, "so that there may remain only the house (or large hall) and bed-room." Some of the cook-shops or inns acquired considerable importance, and with lodgings for students and others which gathered around them, became centres of resort for those who followed similar pursuits, as, for example, the inns of court, where the lawyers congregated. Fines were apparently forbidden in party-walls, and the cooking-stove was commonly placed in the middle of the kitchen, with an opening in the roof above for the smoke. Regularly constructed chimneys were not, however, unknown, as we have seen in the case of the Jew's House at Lincoln, and they may have been constructed in the front and back walls, and in some cases, carried up in the gables. The "Assize" contains further provisions for sanitary contrivances, which indicate an increasing attention to domestic comfort, and mark a distinct advance upon the ruder customs of the Saxons.

We have now sketched, though imperfectly, the arrangement of the houses of the twelfth century. The remains of them are, as I have said, necessarily scanty, but enough can be found to indicate with tolerable clearness the general plan on which the Normans worked. These did not in all probability vary much in the various parts of the country, except from accidental circumstances, such as the prevalence of particular building materials in different districts. The architectural details, as has been seen, followed much the same rules that were observed in the more important ecclesiastical buildings. Painting and gilding were employed for decoration, particularly in the capitals of columns; and some approach to external contrast of colour was often obtained by the use of flint and stone, and contrasted materials of various kinds. The hall was often spacious, and treated in a handsome architectural manner, whether with or without pillars. A gradual advance was being made, at the same time, towards domestic comfort and privacy, and rules were found necessary to restrain the caprices of individuals in our large cities. We find everywhere that willingness to improve on the past, without wholly breaking with it, which, if common with our ancestors of the twelfth century, is certainly not unknown to the Englishman of the nineteenth.

St. James's Church, Bury St. Edmund's. A new vestry has lately been erected on the north side of the chancel of this church from designs prepared by Mr. J. Drayton Wyatt, architect. The work has been carried out by Mr. Lot Jackaman, of Bury. The inside dimensions of the vestry are 32 ft. by 16 ft., and it is approached by an open porch at its north-east angle. It is covered with a wagon-headed panelled ceiling of English oak, with an embattled cornice, from which hang two gas pendants of two lights each, supplied by Mr. Cooper. The stonework of the east window is the same as that which at one time occupied the space above the chancel arch, after the erection of the present nave roof, and before the consequent elevation of the arch to its present proportions. The cost was upwards of 500*l*.

RAMBLES AND STUDIES IN GREECE.

THIS is the title of a small but by no means unimportant book which may be read with special interest by those architectural students whose attention has from various recent circumstances been a good deal redirected towards Greece. It embodies the remarks and reflections of a recent visitor to the Peloponnesus who has brought to that classic ground a combined interest in and comprehension of history and art. The author, Mr. Mahaffy (of Dublin University), is known by previous publications as a gentleman of brilliant acquirements and great historical knowledge, and has devoted himself in a special degree, as he observes in his preface to the present book, to the endeavour "to make English-speaking people intimate with the life of the old Greeks." In visiting the ancient monuments and ruins whose names are so well known to us all, and describing his observations and impressions, Mr. Mahaffy throws over them and their meaning that fresh interest and reality which we always gather from the impressions of a cultured and original observer; and his book contains descriptions and some illustrations of some more lately unearthed specimens of Greek art, chiefly archaic, of which little is at present known in England.

The very interesting and vivid way in which the landscape of the Peloponnesus is sketched, and the connexion between the character of the country and of its States and individual inhabitants brought out, we must merely refer to in passing, just observing that the author thinks, and gives good reasons for his opinion, that there is far more similarity between the modern and the ancient Greeks, in point of character, than is generally supposed, and that the ancient Greeks, outside of the artistic faculty in which they were supreme, were by no means a people peculiarly noble or exalted in character; but they had that faculty of expression in art and literature which enabled them to make the most of their own thoughts and actions, and to leave their brightest side illustrated for posterity. Much which he says on this subject, and on the modern politics and position of Greece, is very suggestive; but we must pass on to notice some passages which more directly bear upon the artistic and architectural side of the subject. It may not be uninteresting to give, in the author's own words, his description of what many have looked to as a moment of interest in their lives,—the first sight of the Acropolis and its ever-memorable ruins. He had an early morning effect:—

"When I saw my dream and longing of many years fulfilled, the first rays of the rising sun had just touched the heights, while the town below was still hid in gloom. And I saw rock, and rampart, and ruined fanes, all coloured in uniform tints; the lights were of a deep rich orange, and the shadows of dark crimson, with the deeper lines of purple. There was no variety in colour between what nature and what man had put there. No whiteness shone from the marble, no smoothness showed upon the smoothed and polished blocks; but the whole mass of orange and crimson stood out together into the pale pure Attic air."

The subdued tone of yellow brown to which the ancient marble is reduced by time Mr. Mahaffy notes as harmonising most beautifully with the blue sky of Greece in the daytime, and lighting up with great richness in the rising or setting sun: he even thinks we should feel a distinct loss of effect if we regained the original lustre of the marble. The one exception to this which is noted is in the remains of the Sunium Temple, which are still perfectly white. The author attributes this to its having been free from the effect of dust on its lonely site; but the explanation hardly seems satisfactory. Now that the idea of the Greek architecture as a colourless marble style is almost eliminated, one is inclined sometimes to question whether these yellow-stained marble ruins were ever white, even as to the ground of the decoration; whether some stain was given to the whole stones of the structure similar to that which there is so much reason to think was applied to the nude portions of statuary. Upon this much-vexed subject of the colour in Greek works of art, and the right and wrong of the matter critically and historically, Mr. Mahaffy has some good remarks to offer. He is convinced that the Greeks could not have sanctioned or admired anything that could be legitimately said to have a tawdry effect, for no people, in all that we positively know of their art and literature, ever showed such a complete distaste for the tawdry and extravagant. But what seems tawdry in our imagination may cease to seem so if we realise the circumstances more fully.

"Where all the landscape, the sea, and the air are exceedingly bright, we find the inhabitants increasing the brightness of their dress and houses, as it were, to correspond with nature. . . . We know that the colouring of the old Greek dress was quite of the same character as that of the modern, though in design the dress of our day is completely changed. We must, therefore, imagine the old Greek crowd before their temples, or in their market-places, in very white crowd, with patches of scarlet, and various blue; perhaps altogether white in processions, if we except scarlet shoe-straps and other such slight relief. One cannot but feel that a richly-coloured temple,—that pillars of blue and *red*,—that friezes of gilding, and other ornament, upon a white marble ground and in white marble framing—must have been a splendid and appropriate background,—a genial feature, in such a sky and with such costume. We must get accustomed to such combinations; we must dwell upon them in imagination, or ask our good painters to restore them for us, and let us look upon them constantly and calmly. To me they appear far finer and richer than *our* attempts at ornament."

The suggestion that some of our painters should endeavour to realise such decorative scenes for us is a good one; it would be a great gain in our perceptions as to the reality of Greek architecture and ornament if we had another artist, equally gifted, to do for it what Mr. Alma Tadema has done for Roman art and life. But the painters would have to take up the subject more seriously than they have as yet done. At present the one or two eminent artists among us who seem to have a certain degree of preference for Greek subjects rarely touch architecture in their works, and when they do they invariably make blunders.

The museums of Athens, small and in some respects uninteresting as they are (except in the matter of inscriptions), now contain some specimens of archaic sculpture which are of the most singular interest in reference to the origin and growth of Greek art. The illustration given (p. 61) of what Mr. Mahaffy believes to be the votive statue of Theseus sent by the Marathonians to Athens (mentioned by Pausanias), suggests a type of art so completely conventional and semi-barbarous as to open up, by itself, quite a train of thoughts and questions as to the first beginnings and the geographical relations of the art which culminated under Phidias. The style of the figure, with its expressionless face, stiff modelling, and conventional hair, reminds us more of Assyrian art than of anything we are accustomed to connect with Greece. There are other specimens of archaic work to be found in the museums at Athens and elsewhere, equally significant as to the early history of Greek art. What we want, as the author observes, is the link to connect these with the art of the Periclean age, which, as far as we have any testimony on record, might have sprung into life at once in full glory, but which we may be assured did not do so, but followed the course of development which is universal in art history. We have ourselves ventured on a theory which might lessen the difficulty.*

Another class of remains touched upon and illustrated, is that to be found in the street of tombs in the outskirts of Athens, only recently discovered. One of these sculptured memorial stones is illustrated (p. 69), and is of extreme beauty of treatment and sentiment. It represents a female figure standing, giving her hand, as if in farewell, to a man who is seated and looks up at her as he takes her hand; behind him stands a male figure with head pensively leaning on his hand. The consideration of this and other monuments on the same site leads the author to some admirable remarks on what he well calls the *reserve* of Greek art, which we commend to the notice of art-critics. The following paragraph we may quote:—

"The commonest epitaph" (on a Greek tombstone) "was a simple χαῖρε, or farewell; and it is this simple word, so full and deep in its meaning to those who love, which is pictured in the reliefs of which I am now speaking. They are simple parting scenes, expressing the grief of the survivors, and the true simple grief of the sufferer who is going to his long home. But what strikes us most forcibly in these remarkable monuments is the chastened, modest expression of grief which they express. There is no violence, no despair, no exaggeration,—all is simple and noble; thus combining purity of art with a far deeper pathos—a far nobler grief—than the exaggerated paintings and sculptures which seek to express mourning in later and less cultivated ages. We may defy any art to produce truer or more poignant pictures of real sorrow,—a sorrow, as I have explained, far deeper and more hopeless than any Christian sorrow; and yet there is no wringing of hands, no swooning, no defacing with sackcloth and ashes. . . . . There is no exaggeration, no speciality, no individuality, I had almost said, in the picture. I feel no curiosity to inquire who these people were,—what were their names,—even what was their relationship to the deceased. For I am perfectly satisfied with an ideal portrait of the grief of parting,—a grief that comes to us all, and lays bitter hold on us at some season of life; and it is this universal sorrow,—this great common flaw in our lives,—which the Greek artist has brought before us, and which calls forth our deepest sympathy."

The author has here hit on the true aim and scope of ideal sculpture, so little understood at present. The chapter is well worth reading.

In the course of his remarks on the more familiar ground of the Parthenon, Mr. Mahaffy suggests that there is the greatest possible difference between the artistic merit of the metopes and of the other two sections of the sculpture, the pediments and the frieze of the *cella*. We are inclined to concur in this judgment; and his suggestion of the reason for it is worth consideration; namely, that the metope sculptures were a repetition of the same kind of "motive," in couples of highly relieved figures in violent action, mainly with the object of architectural effect, and to relieve the squareness and straightness of the other members of the Doric frieze and architrave. This comparison will hold good, at all events, in regard to the pediment sculptures, which have an intellectual interest and meaning, of course, quite beyond that attaching to the metopes. But the conclusion is rather one-sided in respect to the frieze. That the style of the work in the frieze is more refined can hardly be questioned, but it can scarcely be said to have more significance or meaning than the metopes. It is simply a translation into sculpture of the bare facts of the annual procession. We looked for some remark on the fact, so peculiar and so alien from all our notions and practice in regard to sculpture, that this beautifully-executed work is merely a reproduction, in the slightly conventionalised form of art, of what the people saw going on before them. We may realise the sort of relation which this art had to fact and to real life, if we imagine the Houses of Parliament sculptured all round with a succession of figures representing the Royal procession on the way to open the session. If Sir Charles Barry had proposed such a decoration he would probably have been laughed at; yet a precisely similar proceeding is what produced some of the most beautiful of Greek sculpture. We do not say necessarily that because the Greeks did this we should do it; we do not even say that it was altogether the best use to make of such exquisite powers of execution, merely to repeat on the walls of the temple the model of the real procession which went round it; only it should be realised what a very practical and almost prosaic interest some of this work, which we look at with the reverence due to what is hallowed by time, may have had for those by whom, and for whom, it was executed.

It would seem, from Mr. Mahaffy's account, that the Greeks profess to feel very keenly the loss of the Parthenon sculptures, and talk habitually about expecting England to return them before long. What real claim they have to such consideration may be deduced from the fact that the drums of the columns blown down by the explosion during the bombardment in 1687 have been left lying on the ground ever since, and not an attempt made to put them in their places, and that during Mr. Mahaffy's visit he saw an Athenian gentleman practising with a pistol at one of the sculptured fragments in the theatre of Dionysus, his apparent object being to chip a piece off the edge with each shot. Our author therefore rejoiced, in spite of his strong feeling as to the careless manner in which the removal of the sculpture was unquestionably carried out, that the finest parts of it were safe in the British Museum,—until he went to study them afresh there on his return from Greece. *Then*, he confesses to having experienced a revulsion of feeling. "I found that these wonderful fragments lost so terribly by being separated from their place,—they looked so unmeaning in an English room, away from their temple, their country, and their lovely atmosphere,—that I earnestly wished they had never been taken from their place, even at the risk of being made a target by the Greeks and the Turks." It is impossible not to understand and sympathise with this feeling; but, on the other hand, if this had been so, what would be left of them now?

Among the interesting points in the subsequent pages are the accounts of a visit to the

* See "Art Lessons from Mycenæ," p. 145, *ante*.

Chæronean lion, or its fragments (which certainly ought to be put together again before it is too late), and to Tiryns and Mycenæ. The author found bees swarming around the upturned head of the colossal lion, and the honeycomb between its teeth. "The old Hebrew story came fresh upon us, and we longed for the strength which tore the lion of old, to gather the limbs and heal the rents of his marble fellow." Tiryns Mr. Mahaffy regards as having been an old fort rather than a town. It is curious to read that, in comparison with the Tiryns ruins, Mycenæ, with its wheel-tracks yet visible in the gateway, and the marks of the fastenings of the gates, "has quite a modern appearance." The so-called Treasury of Atreus, which Mr. Mahaffy believes to have been a tomb, suggests, of course comparisons between this and the analogous structures,—the raths of Ireland, one of which, at New Grange (County Meath), of which our readers have often heard, is compared in detail with the structure at Mycenæ. The chapters on visits to Corinth and Argos are interesting, and contain some new suggestions; and the book is concluded with two short theoretic essays on the probable attributes of Greek painting and Greek music, which evince much thought and critical insight, and a thorough comprehension of the subjects in their historic and æsthetic aspect. It is, in short, rare to find a "book of travels" of this kind combining so happily an interesting and picturesque style with really valuable information and suggestions, and its perusal ought to do something to awaken a real interest in Greek art and its remains among the many English readers who have at present little comprehension of the subject, while those who are better informed will find not a few points placed in a new and striking light.

CLEOPATRA'S NEEDLE.

EVERY one has read with interest the announcement recently made in the English papers to the effect that, through the beneficence of a well-known member of the medical profession, we shall soon see erected on the Thames Embankment the famous Cleopatra's Needle, which has been so long our unclaimed property.

The mention of the erection of an obelisk in London very naturally reminds us of the obelisk of Luxor, which forms so conspicuous a feature in the midst of the Place de la Concorde.

It was at the period of Napoleon's victories in Egypt, at the commencement of this century, that the idea was first proposed to transport to Paris some trophy of the campaign, but political events having prevented the execution of the project, it was not until thirty years later that the idea was again taken up.

Numerous were the plans by which the two obelisks, standing on a portion of the ruins of ancient Thebes, were to be transported to Paris. At length the project of M. Lebas, an old pupil of the École Polytechnique, was agreed upon, and accordingly, in March, 1831, the vessel, the *Louqsor* (so named from the village where stood the two obelisks in question), started from Toulon, and in due course of time arrived at Alexandria, and, after considerable difficulties in mounting the Nile as far as Thebes, the vessel anchored off the Palace of Luxor.

The first duty was to examine the monuments, and after having carefully cleared them from surrounding *débris*, it being found that one of the two obelisks was to the extent of 3 ft. smaller than the other,* M. Lebas immediately decided on taking this latter, as being in a better state of preservation. The next operation was the "felling," so to speak, of the monolith, and here commenced the real difficulties; of the first necessity was an inclined plane, along which was to slide the enormous monolith, which, be it remembered, weighed no less than 500,000 lb., or more than 200 tons. After three months of incredible labour, in which no fewer than 800 men had been employed, two hillocks of ruins cut through, and half the village destroyed, the inclined plane was ready; now commenced the lowering of the monolith. This was done by means of a simple cable, fastened to the upper portion of the casing of the obelisk, and fixed to a very strong anchor at some 150 yards distance; the cable was retained on the opposite side by a beam turning on a strong pivot. As for the obelisk itself, at its base had been arranged a species of wooden ball and socket movement, which allowed of the mass turning in any direction by the application of sufficient force.

Everything prepared, eight men were put in charge of the cable, who lowered the monument slowly on to the inclined plane ready to receive it; for some two minutes the solid mass hung suspended in mid-air at an angle of 30°, and then slowly sank down amidst the rapturous applause of a numerous crowd of spectators. Now commenced the operation of hauling the mass to the river's bank, where the vessel was awaiting its cargo. This was a matter of some little time, but, when at last arrived, the next question was how to get the obelisk into the vessel: by an ingenious process, the whole fore part of the ship was sawn off, thus opening up completely the hold; strong hawsers having been attached to the monument and passed out by the stern of the *Louqsor*, the obelisk was thus hauled fairly into the vessel, and the bows having been readjusted with minute care, all was ready for starting. In due time the Nile rose at the customary season, and the *Louqsor* afloat, was tugged down the river to the Mediterranean; needless to follow its journey through the "tideless sea," or the stormy Bay of Biscay. The vessel arrived safely in France, and it having been determined to erect the obelisk on the Place de la Concorde, all that had to be done was to carry out the suggestion: here again M. Lebas's sagacity overcame all difficulties. A pedestal of Brittany granite (weighing in itself some 20 tons) having been, after some considerable trouble, constructed on the Place de la Concorde,* it only remained to raise the obelisk; again, the inclined plane was made use of, and the base of the huge monolith having, after many vicissitudes been raised to the level of the pedestal (some 28 ft. high), the next difficulty consisted in hauling to an upright position the enormous weight. By again using the movable scaffolding, M. Lebas succeeded perfectly; for, having fastened a stout cable to the upper portion of the monument, the other end of which cable was attached to a beam moving on a pivot, and having passed through a pulley fastened to this beam another cable, one end of which was firmly anchored and the other connected with the wheel of a strong forty-horse power engine, on the first turn of this machine, the beam beginning to describe on its pivot a quarter of a circle, dragged with it the enormous monolith. Amidst the unrepressed plaudits of the assembled thousands, gradually and slowly the massive block rose to a perpendicular position, and finally stood erect.†

Thus on the 25th of October, 1836, in the presence of a large crowd, and under the auspices of Louis Philippe, the ancient relic, some thirty centuries old, was finally erected in the centre of the Place de la Concorde.

When we think of the costly and complicated system adopted by Fontana (some three centuries before Lebas's time), when the obelisk of St. Peter's was erected, all praise is due to the simplicity and efficacy of the Frenchman's invention.‡

The inscriptions of the obelisk of Paris recall the name and exploits of two kings, Rhamses II., who, it appears, caused the stone to be hewn from the quarries of Syene, and who transported the two obelisks to Thebes; and Sesostris the Great, Rhamses's brother, who erected, and thus terminated, the two monuments. The reign of Rhamses II., who commenced these obelisks, carries us back some 1,580 years before Christ.

Objections have from time to time been raised against the erection of single obelisks, as, say many persons, these monuments were not intended to stand alone; we must, however, be careful to distinguish the ideas which have been attached to obelisks at different epochs.

When the Egyptians placed them before their temples, they were then only a small part of an enormous whole. Since the genius of the arts has reduced public monuments to smaller but more perfect proportions, such as we see in the edifices of Athens and Rome, we have considered obelisks in themselves, and we find a beauty in their material, and especially in their workmanship, which demands that they should stand alone, and thus they have been placed, at the two most remarkable epochs of the arts,—in the century of Augustus, and in that of the Renaissance. Among a score of obelisks which the ancient Romans brought from Egypt, four alone were placed before public buildings,—two at the temple of Isis, and two before the tomb of Augustus. The others were all isolated; and so it was in modern Rome, with the obelisks erected in the Piazza San Pietro, in the Piazza Porto del Popolo, on Monte Citario, and the largest of all in the Piazza of St. John Lateran.

* This was owing to the extreme difficulty of extracting from the quarry of Syene,—where the stone came from,—two such large blocks, which should be of the same size.

* On this pedestal are engraved diagrams of the apparatus used in the removal and embarkation of the monument and its final erection in Paris.

† In the early days of the Royal Institute of British Architects a full account of this ingenious operation, illustrated by models, was given at one of the evening meetings by the conductor of this journal.

‡ A joke exists in connexion with the great expense of this monument (80,000*l.*), which, say the Parisians, cost them no less than *four francs a pound*.

ARCHITECTURE IN THE ROYAL SCOTTISH ACADEMY.

THE drawings annually exhibited in the Royal Scottish Academy may be said to be fairly representative of the position of Architecture in Scotland, for although there are some architects in good practice who never exhibit, yet the great majority of those who have anything of importance on hand make a point of informing the public of its nature. The intelligent observer can hardly fail to note that the character of the work differs in many respects from that of their southern brethren. The Scottish architect is not so easily swayed by fluctuations of fashion as his neighbour, and does not willingly submit to the influence of any one individual who may have attained a good position in the art. There is, however, a natural peculiarity of manner which persistently holds its place, influenced, no doubt, by external agencies, but still retaining its own characteristics, and this may, probably, be attributable to the fact that stone is the invariable material used, even in domestic buildings, whenever an architectural effect is intended to be produced. The Stuart style, as it existed in Scotland, has never been entirely disused, but it never exhibited in stone the redundancy of unmeaning features which are produced in brick; any redundance that does exist is constructive, and takes the form of towers, turrets, and gables, all more or less useful, although, in rare instances, useless turrets have been constructed as ornamental features. As regards church architecture, the established religion being Presbyterian, there is much less regard paid to Mediæval precedent than elsewhere, as no provision requires to be made for a ritualistic service, whereas in civic buildings, of a classical type, a more conservative tendency has been exhibited.

The total number of works exhibited in the galleries is 1,016, and it is said that an equal number have been rejected. In such circumstances we suspect that architectural drawings would be received with somewhat of impatience, and we are informed that a considerable number, —some of them illustrating works of importance,—have been returned for want of space.

Looking over the catalogue, we find only four architectural designs for churches (there are several water-colour drawings of old churches, to which we do not refer), and upon examining these we observe that they are each good examples of the modern Gothic school.

The "Church at Greenock" (evidently Episcopal), of which Mr. R. Anderson gives both an exterior and interior view, displays no attempt at introducing anything new; it is Early English in style, and unexceptionable as to detail and proportion.

Mr. R. Thornton Shiells aims at giving to "The Free Church at Leslie, Fife," a distinctive character. In a Presbyterian church, where chancel and aisles are forbidden, the architect is under the necessity of accentuating other features. In this instance the accompanying "hall" has been made to form a conspicuous feature in the principal elevation, and is placed so that it, the spire, the main gable and projection containing the staircase to the gallery, blend into composition.

The "New West Church, Fraserburgh," by Messrs. McGibbon and Ross, depends mainly for effect upon the spire, which is well set on the ground, muscular, and effective.

The "West Fountainbridge School," by Mr. R. Anderson, looks better in reality than it does on paper. We have already given a full description of it.

In the "Inverness Town-hall" Messrs. Matthews and Laurie have attempted to give new expression to the Scottish style, having imparted to it somewhat of a Flemish character. The effort does not appear to us a successful one. The square corbelled angle-turrets are forced, and the gablets which flank the tower

are apparently useless pieces of constructed decoration, which do not help the composition, merely introduced as tit-bits which the designer could not part with.

The "Premiated Design for Paisley Town-hall," by John Robertson, is a rather heavy Gothic design, lacking expression and concentration. The loaded louvre rising from the centre of the block is a poor substitute for a tower, which gives character and importance to the chief civic building of a town.

Mr. Gowans is not content to leave the "Buildings in Castle-terrace, Edinburgh," *in statu quo*. The West End Theatre, which forms the centre block of the buildings, is the only portion erected. It was originally intended that the group should be distinguished by four towers of rather fantastic design; for these there is now substituted a large square dome, greatly to the advantage of the composition. In the present position of matters it is very questionable whether it will ever be realised.

The "*Dundee Advertiser* Office," by Messrs. C. & C. L. Ower, is a large block of buildings, having a distinctive commercial character, to which an architectural effect is given by a low broad tower at one end, which is evidently useful, as well as ornamental.

The "Hotel and Arcade at Blythswood Holme, Glasgow," by Mr. J. Dick Peddie, is a carefully-considered design, in the modern French style. The manner in which the second and third floors are brought together, and yet kept distinct, is happily carried out; it gives dignity to the elevation without departing too freely from the prevailing horizontality of the fenestration which is thereby brought into harmony with the flanking pavilions, these being covered by mansard roofs. The reticence as to detail, which does not descend to niggardliness, is highly commendable.

There is quite a rage for new hydropathic establishments in Scotland at present; we have heard of several that are contemplated, and we have here the designs of two which are in course of erection. One of these is situated at Dumblane, and is designed by Messrs. Peddie & Kinnear; the other, at Moffat, is by Mr. F. T. Pilkington, and the difference between them is worthy of observation. The former is essentially English in character, and its effect depends upon proportion and balance, combined with homelike simplicity; the latter is as distinctly French in aspect, redundant in detail, picturesque and restless in composition. The one, when new and fresh, will appear at its best; the other, when age has toned down its strongly-pronounced features.

Decidedly the most interesting design exhibited is that for the "New Buildings for the Medical School, Edinburgh University," by Mr. R. Anderson. The style adopted is the Venetian Cinque-cento, and the disposition, arrangement, and grouping of the parts is varied, yet homogeneous and highly effective. The fenestration of the principal elevation is arched throughout, the windows of the first floor being of two lights with a circular tracery opening at the heading. At the north-west angle there is a square pavilion having a low roof rising to a point, and covered with tiles; the centre is accentuated by a semicircular pediment filled in with a bas-relief; equidistant from the pavilion rises a campanile, from which there proceeds a rounded-off corner to the south-east. The manner in which the west elevation is broken up so as to get over the awkwardness of the slope to the south displays considerable skill in getting rid of abrupt breaking up of the line of cornice. The campanile bears a distinct likeness to the well-known example in the Place of St. Mark's, Venice, but clock-faces are introduced about three-fourths up with slightly projecting balconies in front of them, and above the clock-faces there are bas-reliefs. If we were to be hypercritical, objection could be taken to the position of these bas-reliefs, for though they look pretty on paper, their effect would be quite lost at such a height. These buildings are to be commenced forthwith, and will form one of the most attractive features in the city. The site, at the north end of the Meadow-walk, is a good one, and the tower if erected (of which there appears some doubt) will be seen to great advantage.

"Wachope House, Roxburghshire," by Mr. C. G. H. Kinnear, is Gothic in style, more after the manner practised in England than in Scotland, but it may be that the surrounding landscape is of similar character.

The "additions to Drybrough House," by Messrs. Peddie & Kinnear, are in the Scottish Baronial style, and while showing nothing novel or peculiar, are satisfactory.

"The Mansion House of Gala" bears the name of David and John Bryce as architects, and does not, therefore, give us any indication whether the cloak of the uncle has fallen upon the nephew. It bears a marked resemblance to other designs of the late Mr. David Bryce.

Mr. Leiper has the power of impressing his personality upon his designs; they have a character of their own which at once declares them as his, although at the same time he has no want of resources either as regards style or detail. The "additions to Carnock, Lancashire," are Scottish Baronial in style, with a distinctly modern aspect of homely comfort combined with dignity.

"Coatbridge Hall," by Mr. T. B. M'Fadzen, has been exhibited before, and we see no reason why it should appear again merely because the drawing is now coloured.

"Ashfield Grange" is the residence of the architect, Mr. D. McGibbon, and may, therefore, be looked upon as his utmost endeavour as far as the means extend. It is a residence of some importance, designed in the Scottish manner. The projecting wooden canopy over the doorway, and the large raking staircase window are effective, and the chimney-stalks form an important and good feature in the skyline.

The "Dining-hall," designed by Mr. J. W. Small, is a fair example of the Stuart style not overdone.

We will treat of the paintings in our next.

OF TASTE, NATURAL AND CULTIVATED, IN ARCHITECTURE AND THE FINE ARTS.*

> "What then is taste, but these internal powers,
> Active, and strong, and feelingly alive
> To each fine impulse? a discerning sense
> Of decent and sublime, with quick disgust
> From things deform'd, or disarranged, or gross
> In species?" —*Akenside.*

Taste is the governing power in the sphere of the fine arts, and enables us to discriminate the beauties of nature and of art; and the first step towards acquiring an exact taste and judgment in respect to visible objects, is to gain an accurate knowledge of their leading characters. The meaning of the word taste has been variously defined. At the present period this subject is seldom treated of, although of great importance in training the mind, naturally prepared for the reception of correct principles.

Poets sing of the "golden age," the "silver age," and the "iron age." The present age has been termed the "flimsy age," everything being made to suit a temporary purpose, to catch the eye, and to gratify the eye for novelty, without any regard to real and substantial excellence. The passion for novelty has been the principal means of corrupting taste.

In all professions,

> "Those who live to please, must please to live."

The restless desire of novelty, so general among all mankind, may, perhaps, be the principle of both; to the extravagances and caprices of which, those who make it their business to supply the gratifications must, of course, conform; for, whether an artist or an author work for money or for fame, he is equally dependent upon public opinion. Hence the importance of public education. The object of education is not to bring all minds up to a certain standard, but to do the best that nature permits with each individual separately. And this raises a question of grave interest. A total revision of the system of education must be enforced. The education of the people demands that science should be reconsidered, and reduced to simple elements. To the great universities we are much indebted. When they were instituted, bear in mind, Classical learning was enjoyed only by the few. Since which period the Classics, and all books written in foreign languages, have been freely translated. In the present advanced age, all the terms in architecture, geometry, astronomy, botany, entomology, &c., can be reduced, and concisely expressed, in a more simple language. The Universities at Oxford and Cambridge have had their day, the people now require universities in every chief town throughout the kingdom.

Of course, a crusade against the Classical system would have as much chance of success as Mrs. Partington's attempt to keep out the Atlantic tide with her mop. The sanction of the learned men of all ages and nations for many centuries to a Classical association with the familiar phraseology of Pagan times is too deeply rooted to admit of an immediate change. Still it is no argument to say that the Classical systems which have taken so many centuries to build up, would require as many more to change for another, which would decidedly recommend itself to unlearned people, although not likely to satisfy a pedantic professor. We need not throw our Homers and Virgils into the fire, and dismiss from our minds the beautiful conceits which inspired a Phidias and a Praxiteles, and those later gifted artists. Yet we must educate the people, if artists and authors are to be dependent upon public opinion.

In the Roman times, Pomponius Secundus, a celebrated author, consulted with his friends about the "polishing" of his writings, and if they happened to differ in their opinion about the elegance, justness, and propriety of any thought or expression, he used always to say, "I appeal to the people," as the best deciders of the controversy.

In more recent times, Cowper says,—

> "From education, as the leading cause,
> The public character its colour draws."

The early Greeks were not averse to educating the public, and rendering science intelligible to the popular intellect. This has been exemplified in the grand hymn of Cleanthes, preserved by Stobæus, and quoted by M. Le Clerc de Septchenes. Of course the appeal is to their immortal Jupiter, but still it exhibits the wisdom of the Greeks. The following quotation will suffice:—"Thou bringest order out of confusion, and by thee is the jarring of the elements composed. Thou has so mingled good and evil, that general and universal harmony is established. The wicked alone amongst all thy creatures disturb the general harmony. They do not comprehend thy universal law, that *making them wise would make them good.*"

Numerous critics and connoisseurs have written voluminous theories, but have somewhat confused the inquiry by not sufficiently distinguishing between natural and cultivated taste. Of these writers may be enumerated Bacon, 1597; Locke, 1632; Kames, 1696; Pope, 1711; Addison, 1719; Franklin, 1728; Watts, 1732; Hume, 1738; Burke, 1756; Gerard, 1758; Blair, 1759; Alison, 1790; Reynolds, 1791; Stewart, 1792; Price, 1794; Jackson, 1795; Sulzer, 1806; Knight, 1806; Hogarth, and many others.

The professors of the Royal Academy,—architects, painters, and sculptors,—have learnedly lectured on taste; prominently among them, Green, Howard, Westmacott, and Cockerell may be consulted, as well as Sir Joshua Reynolds.

Natural taste is easily distinguished from cultivated taste. Children exhibit the rudiments of it. They are passionately fond of every novelty; pleased with order and regularity, consequently quick at discerning irregularities. For want of culture and exercise, they are delighted with childish trifles, such as dress or equipage. But of the sublimity of nature, the ingenuity of art, the grace of painting, the charms of poetry, they understand nothing. Gerard accurately observes that it is only in the few who improve the rudiments of taste which nature has implanted, by culture well chosen and judiciously applied, that taste at length appears in elegant form and just proportions. All works of art are in bad taste when only art is met with, or where only nature prevails. Every work of art owes its excellence to a judicious union of both. The artist, who forms the plan of his work in a moment of inspiration, invents every particular part without long inquiry; the thoughts rush into his mind and spontaneously assume the position which they ought to take; and the plan often merits the highest praise, without the artist's knowing the reasons which governed his choice. This is nature. But when he again considers his plan with cool deliberation, when he revolves the nature of the whole, and of the particular parts, and finds that this or that should, for obvious reasons, be different from what it *is*, in order to render the work more perfect, he adopts the necessary alterations. This is consequently art.

The genuine critic has been considered as the teacher of the artist, and correctly so, when we reflect how much time, diligence, and practice he ought to possess, and this in addition to his possessing a natural genius for the arts.

Taste has been regarded as a unity resulting from the equilibrium of all the powers that con-

* By Mr. W. Pettit Griffith, F.S.A. Read at the Liverpool Architectural Society, on the 7th inst.

stitute the human mind,—a complacency arising from the equable excitement and gratification of the whole man, as far as his character is exclusively human.

Prior to entering upon the question of taste, it must be recollected that elementary principles which have been correctly deduced cannot be changed.

Price correctly observes that it is not by copying particulars, but by attending to principles, that lessons become instructive. And Westmacott asserts that the elementary principles of sculpture and painting are the same; the same rules are prescribed for the acquisition of a correct view of nature, both as respects character and the harmonious combination of parts.

In the bulk of mankind the powers of taste receive no culture, though they were naturally imparted in all. Consequently the public rarely give themselves the trouble to judge.

As the poet must be born and not made, so also the architect; and although every one is not capable of forming an opinion on subjects of taste, still taste is capable of being acquired. The mind must next be divested of classical associations, inspired by the remains of ancient Greece and Rome, extending to all who receive the advantages of a learned education. The authority of these is great, and, until recently, architecture and sculpture were so consecrated by established opinion as to preclude all criticism. Natural or local associations, and personal associations; fashion, transient and useless, losing all connexion with reason and the moral principles, must be ignored. The only species of taste to be followed is that founded on the study of universal beauty, called philosophical taste; implying a sensibility, deep and permanent, accompanied with an enthusiastic love of nature, simplicity, and truth in every department, both of art and science. Sir Isaac Newton wisely asserts that Nature is pleased with simplicity, and affects not the pomp of superfluous causes. The two distinguishing characteristics of perfect taste are correctness and delicacy; the former detects blemishes, and the latter perceives those more refined beauties which cultivated minds alone can feel.

The propagation of a philosophical taste has, from an early period, experienced the vicissitudes ever attendant upon efforts to maintain the supremacy of the mind over the body.

The Romans, originally of a rough and warlike disposition, fearing that the minds of the people would be softened and enervated by study, issued a decree, bearing date A. U. C. 592, by which it appears, "that, whereas Marcus Pomponius, the Prætor, had made a report to the Senate about the philosophers and rhetoricians, the fathers did hereby order the aforesaid Prætor to take cognisance of the business, and to suffer no such men in Rome." This prohibition only allayed the eager passion for learning for a time, as it was not many years afterwards the people showed as much diligence in their pursuits of knowledge as they had ever done in their applications to war.

To produce a perfect work of art, in architecture, painting, or sculpture, requires great attention and accuracy, not easily to be conceived. Virgil used to compare himself to the bear, who from gross and unformed lumps, as her young ones are at their birth, gives them shape and proportion by the pains she takes in licking them. Thus excellent works are formed.

Burke says, by the word taste he means no more than that faculty or those faculties of the mind which form a judgment of the works of imagination and the elegant arts.

Alison considers taste as that faculty of the human mind by which we perceive and enjoy whatever is beautiful or sublime in the works of nature and art.

Taste and genius, observes Blair, are two words frequently joined together, and therefore, by inaccurate thinkers, confounded. Taste consists in the power of judging, genius in the power of executing.

Guibert, in his "Essay on Tactics," says that taste is a talent which may be improved, but is not to be acquired by practice. It is an intuitive faculty, and the gift of Nature, a gift she bestows only on a few favourites in the course of an age. Stewart asserts that taste is susceptible of improvement from culture in a higher degree, perhaps, than any other power of the mind. Kames, however, argues that a defective taste is incurable, and that it hurts none but the possessor, because it carries no authority to impose upon others." This is a grave error, as works of art in depraved taste poison the public mind.

Judgments on taste cannot be formed without first producing a test and standard to appeal to. Pope says,—

> "First follow Nature, and your judgment frame
> By her just standard, which is still the same;
> Unerring Nature, still divinely bright,
> One clear, unchanged, and universal light,
> Life, force, and beauty must to all impart,
> At once the source, and end, and test of art."

This standard must be accomplished in the following manner:—

First,—Sensations of the palate, dreams, sudden love, dancing, &c. are excluded from our inquiry. Impressions caused by seeing and hearing are naturally placed in the mind where they really are, and upon that account they are conceived to be more refined and spiritual than what are derived from tasting, touching, and smelling; for the latter feelings seeming to exist externally at the organ of sense, are conceived to be corporeal.

Secondly,—It must be admitted, and there is no reason to the contrary, that in the beginning, when God created the heaven and the earth, all, whether animal or vegetable, was perfect.

> "The gen'ral Order, since the whole began,
> Is kept in Nature, and is kept in Man."—*Pope.*

Thirdly,—From a variety of circumstances, abortions and degenerations altered or distorted, modified or perverted, the original perfection.

Michaelangelo paid an implicit deference to Nature, and a due respect for the works of his predecessors; and matured his studies by contemplating the principles of the ancients; for he who takes for his model individual nature, and confines himself to exact imitation, cannot hope to attain to the perfection of ideal form. Phidias, when he made his Jupiter, copied no object he had ever seen, but contemplated only that image he conceived in his mind from Homer's description.

Pliny mentions an excellent painter, named Zeuxis, who selected five fine maidens after having seen all in the city, "to take out, as from several patterns, whatsoever he liked best in any of them; and of all the lovely parts of those five, to make one body of incomparable beauty."

Writers on taste have somewhat mystified the subject by indulging in wordy intoxication; for

> "Words are like leaves; and when they most abound,
> Much fruit of sense beneath is rarely found."

It requires much time and attention to sift lettered grain from lettered chaff. Theories are valueless when they are contradicted by facts.

The standard of natural taste is nature perfected. In architecture a standard of cultivated taste is required for every country in the world based upon the climate and the wants of the people. For instance, the inclination of a roof depends much on the climate as well as the style of the structure. In Eastern countries flat roofs are still very common. In Northern climates a high-pitched roof is indispensable. In China the pagodas are peculiar to the country; and in India the excavated rocks require no artificial roof at all. Each cultivated country has, therefore, its own characteristics, which must be judged of by the standard of taste of the country. Architectural taste in England is as variable as the climate, consisting of "all sorts." There is consequently no particular standard of taste in England; but a standard of taste can be applied to each style selected from other parts; for example, if the style be Grecian, the standard taste of Greece must be sought; and so of other styles borrowed from abroad.

It is understood that any style may be adopted which best accords with the object of the building, and which is most suited to the taste of those for whom it is erected. But one thing is indispensably required, the ornaments are to be in character with the style selected, and should be in accordance with the most approved examples which it affords; this is due even to consistency and good taste. As Shakspeare says,—

> "Old fashions please me best; I am not so nice,
> To change true rules for odd inventions."

It is surprising that Bacon, Burke, Hume, and others should display so much ignorance of true taste. Bacon was evidently a utilitarian.

Burke urges that proportion is not the cause of beauty in the human species, animals, or vegetables; and Hume asserts that all beauty is merely ideal and imaginary, and not in any case an inherent quality in external objects.

John Hunter, the celebrated surgeon, used to maintain, and Knight thinks he proved it, that the African black was the true original man. To prove this assertion, it becomes necessary to ascertain where the Garden of Eden was situated. Many conjectures have been formed, but not one of them satisfactory. Hunter's original Venus, or Goddess of Love, would consequently have a broad, flat nose, high cheeks, woolly hair, a jet black skin, and squat, thick form,—a piece of deformity; but in the eyes of the African black man she would be a beauty; and with the same people, so far from thinking the whiteness of a European skin conducive to beauty, it only excited the idea of dead flesh sodden in water.

Associations not common to all mankind are peculiar to the individual. They take their rise from education, from peculiar habits of thought, from situation, from profession; and the beauty they produce is felt only by those whom similar causes have led to the formation of similar associations. The admiration of architecture, furniture, and ornament, which is derived from antiquity, though very justly due to these forms themselves, originates, in the greater part of mankind, from the associations which they connect with these forms. The associations, however, are merely accidental.

If proportion be not the cause of beauty in animal and vegetable forms, it at least forms the basis; and, no doubt, the generality of mankind live in the world without receiving any kind of delight from the various scenes of beauty which its order displays, in consequence of the mind not being properly cultured.

The fine arts are contrived to give pleasure to the eye and the ear, disregarding the inferior senses. A taste for these arts is a plant that grows naturally in many soils; but without culture, scarce to perfection in any soil. It is susceptible of much refinement, and is by proper care greatly improved. Thus the fine arts become a rational study, and may be cultivated to a high degree of refinement.

There are certain periods of time in which the spirit of perfection universally diffuses itself throughout all professions, proving that all arts are allied to each other. The taste of perfection is the same in whatever depends upon genius; but if cultivation be wanting, an infinity of talents lie buried. When true taste takes the lead, those tastes deriving mutual aid from each other display themselves in a remarkable manner. It is to be lamented that when perfection reaches its culminating point, it is the forerunner of the decline of the arts and sciences.

It has long been considered that a new style of architecture involves a new construction, and that the introduction of iron, terra-cotta, and other materials was calculated to accomplish this desideratum. Upon reflection, by following the dictates of Nature, and observing that in forming her works,—they being always in accordance with a principle of order, as well as a principle of special adaptation,—there can be no reason why many styles may be created. Nature does not indulge so much in numerous varieties of construction, as she does in multiplying examples, with varied decorations. Take, for instance, the cat tribe, which includes a large number of animals very closely resembling each other in structure. The construction of one caterpillar served for a whole race, but the varied decorations and tintings of each butterfly, or moth, produced in appearance a new style.

A regret is often made by architects and even professors that Nature has not provided for man a few examples of buildings for his imitation, forgetting, at the same time, that all the principles necessary for useful building are afforded by Nature. For example, take the drainage of a city, with its main sewer, and the numerous ramifications of its small drains; the principles requisite are beautifully exemplified in the arterial system of the human frame, proceeding from a single trunk termed the aorta, and ramifying in every direction through all the various tissues of the body, and giving off branches dividing and subdividing to their ultimate ramifications; again, take a leaf with its midrib and its numerous veins.

In the "Library of Entertaining Knowledge," published some years ago, a volume was devoted to "Insect Architecture," in which we learn of the mason and carpenter wasps, bees, and ants; mining, lapidary, and upholsterer bees; carpenter, tent-making, and stonemason caterpillars; and the mason and raft-building spiders, &c. These all afford instructive lessons to the architect and builder. The principles involved are remarkable.

One of the greatest offences against good taste is bombast, which is highly repulsive to persons of refined genius. Young writers of

lively imagination should guard against nothing with more vigilance than bombast. He who feels any disposition to it would do well to exercise himself for a considerable time in the most simple mode of writing, in order to get rid of this unfortunate propensity. It is with taste in the fine arts, as with that which relates to the exterior behaviour,—he who has not had any intercourse with men of the more polished sort will find far more pleasure in a certain unrestrained vivacity and rudeness of manner than in the more refined behaviour of persons of liberal education.

A perfect taste can only be attained by creating a standard applicable to every species of excellence, and it is by no means hopeless to arrive at a fixed standard of taste, the more especially as the greatest artists, both of ancient and modern times, have always endeavoured to copy after a certain ideal of perfection. No critic can offer a judgment on architecture, painting, or sculpture, without first cultivating his natural taste; and, secondly, by studying in detail, and obtaining a profound knowledge of all the sciences, producing a philosophic taste.

A natural taste assists the architect in forming his works in accordance with a principle of special adaptation. The mouldings and details of the buildings of Assyria, Egypt, Greece, and the Middle Ages, require a cultivated or educated taste. To the painter and sculptor, nature affords a far greater assistance; the former has to portray Nature as she herself would, and the latter, with a sound knowledge of anatomy in repose and in action, is restrained only within the bounds of possibility.

Although a philosophical taste has a powerful influence over the minds of the people, still it must be allied to true religion, to secure a moral governance. In Greece during the reign of Pericles, the fine arts flourished and have left masterpieces, which have been the admiration of all subsequent ages and generations of civilised men, but Pericles himself set a bad moral example by separating from his wife and living with Aspasia, a dissolute woman, causing the Peloponnesian war, and ultimately the destruction of all the glory of Athens. Alcibiades affords another example; an Athenian of high rank, endowed with talents of the very highest order, and yet he committed grievous errors, through unruly passions and want of principle.

It has been repeatedly urged that just when a man has reached the temple of learning, after years of literary toil, observation, and thought, he has to depart this life lamenting its shortness, and complaining of the partiality of Nature in granting longevity to the crow, and to the stag, but not to man.

Finally, it has been wisely observed, that the whole universe may be regarded as an exhaustless stock of intellectual nutrition, and those productions of man which are the result of elaborate inquiry and profound investigation, in which all the powers of the mind have been most actively employed, may be regarded as a faint approximation of the Divine intellect.

"THE BATTLE OF ST. EGIDIO."

MR. PLANCHÉ read a paper at a recent meeting of the British Archæological Association, as already mentioned, on a picture in the National Gallery, Trafalgar-square (No. 385), described in the Catalogue of the Gallery as "The Battle of St. Egidio," by Paolo di Dono, called Uccello, of which he exhibited a copy, and contended that the incident represented in the picture was not that described in the catalogue. Mr. Planché also exhibited two interesting pictures, the property of an American gentleman, Mr. Charles Coleman, and attributed to the same painter, the subjects being the taking of Pisa by the Florentines, in 1406, and the Battle of Anghieri, between the Milanese and the Florentines, in 1440; also a print of another "Battle-piece," formerly in the Musée Campana, and now in the Louvre at Paris, said to have been painted by Uccello, and he pointed out to the Society certain peculiarities in the military costume which were not in accordance with the date of the death of Uccello, as variously reported. Mr. Planché concluded by saying, "I am no connoisseur. I do not pretend to pronounce an opinion on either the merits or the style of a painter; but I am deeply interested in the study of costume, and more anxious to learn than ambitious to teach. I have vainly endeavoured to reconcile the discrepancies which have struck me in the examination of these pictures [those belonging to Mr. Coleman], which, at all events, are undoubtedly genuine works of the fifteenth century, by whomsoever painted, and trust the Association will not consider that I have unnecessarily occupied its time in calling its attention to the archæological importance of the subject."

The discrepancy pointed out by Mr. Planché between the armour and helmets in the "Battle of St. Egidio," and the supposed date of Uccello's death, may depend to a certain extent on the uncertainty which exists as to that date. The date of his birth is usually given as 1396, but he himself in existing tax-papers, quoted by Messrs. Crowe and Cavalcaselle, says in one 1396, and in another 1402; so that if more than seventy-five when he died, as seems tolerably certain, we are brought far into the fifteenth century. The description in the National Gallery catalogue, which makes Malatesta a prisoner, certainly seems wrong. Crowe and Cavalcaselle say, with more plausibility, that Malatesta is, with his nephew, Galeazzo, issuing the order to advance, but even this fails to satisfy one when looking at the picture.

THE RESPONSIBILITY OF MASTERS TO WORKMEN FOR THE NEGLIGENCE OF FELLOW-WORKMEN.

IN an article in the *Builder* of February 17, on the question of the responsibility of masters for the acts of lent servants to workmen who were fellow-servants with the lent servant, we showed how the doctrine of the non-liability of a master for injuries done to one servant by another in his employ had been gradually expanded so as to take in even lent servants. We then promised to recur to that general question of master and servant. In the present article we propose to show very shortly what is the general law, not only of this country, but of Continental nations upon this subject, and how that of England has assumed its present aspect. This can only be done in a brief manner, for to go at length into the various decisions and dicta which may be found in the law reports would only be fitting for a purely legal publication. The first broad rule is, that a master is liable for the acts of his servants, and in the term "servants" workmen are, of course, included. To this, however, there is now a very important exception, and that is, that if the injured person is a fellow-servant (*collaborateur*) of the man who has inflicted the injuries, then that the master is exonerated from the consequences which would otherwise naturally follow, unless the injured man can prove that the master did not select his servant with reasonable care.

Now, the way in which this exception,—one which has the greatest possible interest for those engaged in mechanical and manual trades,—has grown up is singularly curious. Before the year 1837 no trace of it is to be found in English law books. But in that year the case of Priestley *v.* Fowler was decided by Lord Abinger (3 Meeson & Welsby, p. 6). That case, however, was one in which a servant sued his master because a van which he was driving broke down and broke his thigh, and it was decided that the master was not liable. It will be obvious that here there were no facts which touch upon fellow servants. But in the course of the judgment Lord Abinger let slip certain expressions about injuries inflicted on one servant by another and the consequences to servant and master, which, unfortunately, got fixed on by succeeding judges, and formed the exceedingly narrow basis for a very wide legal doctrine. For, in 1850, the doctrine of which we are now speaking was expressly declared to be the law (Hutchinson *v.* The York, Newcastle, and Berwick Railway, 5 Exchequer Reports, p. 343). There was here a sort of allusion made to Priestley *v.* Fowler, as though that case were an unimpeachable and a direct decision. The principle was thus laid down:—"The principle is that a servant when he engages to serve a master undertakes, as between him and his master, to run all the ordinary risks of the service, and this includes the risk of negligence on the part of the fellow servant whenever he is acting in discharge of his duty as servant of him who is the common master of both." Curiously enough, on the same day another decision affirmed this identical doctrine. But whilst the judges confidently lay down a principle, they really have no ground, except a few disjointed remarks of Lord Abinger's, for so doing. It was a principle which was extracted entirely from their inner consciousness, and for which no legal foundation whatever existed. Meanwhile, the Scotch Bench had been expressing strong disapproval of the doctrine, and deciding cases in an opposite direction,—a very able judge like Lord Cockburn criticising the decision in England very adversely. So that it became necessary for the House of Lords, as the Supreme Court of Appeal, to become umpire between the differing lawyers, and in 1858 they expressly decided that the English judges were right, in the line which they had taken. This decision was again followed as recently as the year 1868 (Wilson *v.* Merry, 1 Law Reports, House of Lords). The Law Lords, however, seemed to consider that there was a special tacit contract entered into by workmen to bear harmless the master for injuries done to them through the negligence of those working with them. But quite recently the curious anomaly has been presented of judges following the tenor of previous decisions, but without either agreeing with or understanding them. Thus, Sir Baliol Brett observed (Lovell *v.* Howell),—"I feel a difficulty in understanding or defining what is the precise principle upon which the immunity of the master rests." Some judges indeed have intimated that the doctrine is based on public convenience; others, that there is "a tacit agreement" between master and servant that the latter will bear all ordinary risks incident to his employment, among others possibly of injury from negligence of fellow servant. So that, as a matter of fact, a legal doctrine has gradually become fossilised, of which the beginning is a few loose sentences in a single judgment.

When we look abroad we find that some difficulty and doubt upon the question existed at one time in France. But in 1841 it was definitely decided by the Cour de Cassation (Reygasse *v.* Plazen, Dallos Jurisprudence Général, 1841, *i.*, p. 271), that a master was as much liable when a servant was injured by another servant as when the harm was done to an entire stranger. This doctrine has been followed in recent years, and remains the law in France. In Italy and Germany the same law exists, so that England and (with some exception in certain of the American States) the United States are the only countries in which an exception has been grafted on the general law. We have here only pointed out how comparatively recent has been the growth of this exception to the general rule of law, how small were its first beginnings, how different are the reasons upon which judgments have been based, how the Scotch bench have disagreed with their English brethren, how finally the principle was settled by the House of Lords, and how much at variance are the rules which govern this subject among Continental nations with those which are prevalent this side of the Channel. But another time we hope to examine the reasons upon which this exception rests, and the arguments for and against its continuance.

A SUGGESTION FOR THE THAMES EMBANKMENT.

JOHN MARTIN or Sir Frederick French, who forty or fifty years ago so energetically advocated the embankment of the Thames, could never have contemplated the possibility of their magnificent dreams when realised being adorned by the erection of Cleopatra's needle, but both the painter and the general did suggest that the projected quays should be utilised.

In Paris, the mile and a half of parapet stretching from the Quai d'Orsay to the Quai de la Tournelle, is the rendezvous of the bookstall-keepers, who, in numerous weather-beaten boxes, expose their literary wares to a knowledge-seeking public, which gathers round the hives, like bees, seeking pabulum from the most orthodox theology, down to the questionable love-tale of the worst penny-a-liner.

Only a very small proportion of the visitors to Paris avail themselves of this means of passing their time: a few Englishmen, an equal number of Americans, some Germans, and the real working students and an occasional priest may be seen passing some of the happiest hours of their lives here. Of all the means of spending a little money, the book-hunter on the *quais* may be said to have hit upon the most felicitous.

In London we have only our Holywell-street and Brompton-road for those who can rarely indulge in a visit to Pickering's or to Booth's, though indeed every district of London has its

book-shops, out of which a treasure more or less valuable is certain to be dug. Here in Paris it is on the *quais*; at Brussels, it is in the Marché de la Madeleine; at Rome, in the Piazza Navona or on the bridge of Saint Angelo; at Florence, it is before the famous palace of the Uffizzi; at Naples, on the Chiaja; at Turin, in the rue du Pô; at Lyons, on the quai de l'Hôtel Dieu; at Stragsbourg, in the Foire aux Guenilles; and at Bordeaux, in the Fossés des Tanneurs. Each city has its market and its special number of frequenters.

Those who are versed in the mysteries of the "chase," as we may call it, and who know most of the hunting-grounds of Europe, assure one that Paris is the spot where most charm and most fruit are to be found. Here it is that the amateurs are sure to satiate their curiosity, their mania, their passion; and many a time, venturing out at midday, when the burning sun has been tempered by the green shade of the over-arching trees, the book-hunter is surprised by the setting sun before he has advanced many yards from where he started. Happy oblivion, in which all cares are forgotten, all troubles laid aside!

This is the case with the hunter in the old book-boxes, whose owner paces slowly up and down before his little store, looking up from time to time from his own particular favourite to replace with emphasis a book not purchased, but disturbed, and now stuttering out some few broken words of English as one bargains for some odd numbers of the *Edinburgh* or the *Quarterly*.

The bookstall-keeper, who in very rare instances is an embryo Bolin or Didcot, renews his slender stock by occasional purchases at the Hôtel Druot, or the room in the rue des Bons Enfants. Arrived at home, each volume is carefully examined and noted, for the race of unsophisticated booksellers has disappeared, "finds," or lucky "hauls," become each day more rare. The stories told of yore, legends, in fact, now, of the *César* of Montaigne, purchased for eighteen sous (or about eightpence) by Parison, and sold at his death for 1,500 francs (60*l.*) he doubts; he has heard M. Fontaine de Rerbecq boast of how he bought for six sous the charming and excessively rare *Patissier Français*, published by Elzevir in 1655, and now worth 2,000 francs (80*l.*); or again the Du Cerceau map of Paris (1572) bought by M. Gilbert for a trifle of half a franc, a copy of which was sold lately to the library of the City of Paris for three thousand francs (120*l.*); but he wishes, indeed, to ignore, if possible, these facts, humiliating to his corporation.

Summer and winter, winter and summer, each morning, as the clock on the Palais Mazarin strikes eight, the bookstall-keeper arrives, urging before him his little barrow containing a few boxes with their contents, which, when disposed on the parapet, are arranged in modest gradation from five centimes to two francs. Two francs the *ultima thule* of his treasures. Sometimes, however, he has a supplemental box in which books of a higher price are exposed; but these are not his favourites, as he relies more on the quicker returns on the smaller ventures.

But not without their faults are these good purveyors to the public pleasures, they have their enemies who spoil their temper, the principal of whom are the unemployed, the *flâneur* without money, the poor devil without a home, who, opening the first book that comes under his hand, deliberately proceeds to read it through from end to end. The story is famous of the needy reader who turned down the page of a book in order to continue it next day. Another set of enemies to the bookseller are those attracted by the pictures; or the bootles who, standing before a box, allow themselves to watch for hours the swift course of the river.

All this, with the ordinary traffic of business or pleasure gives a life, a "go" to the *quais*, that our embankment sadly wants, and if some enterprising book-owners obtained permission to plant their boxes on the parapet of the quay, we should soon have the now long dreary walk from Westminster to Blackfriars enlivened by all the tribe of hunters who at present avoid the thoroughfare as often as they can.

The flock of young law and medical students trooping down Templewards and King's Collegewards, or from St. Thomas's, or the literary members of the new St. Stephen's Club would, like the young law and medical students of the Quartier Latin, in Paris, suffice to keep up a whole line of book boxes, while those amateurs who wish for Aldi, Elzevirs, and *principes*, just as in Paris on the Quai Malaquais, can seek elsewhere their choice and rare copies.

If to this were added a line of *kiosques*, in which the journals and current literature were sold, we should have in our Embankment, with its broad pavements, its shady trees, its gardens, its obelisk, Westminster Abbey, the Opera House (if ever finished), the Nelson Monument, Northumberland Avenue, Waterloo Bridge, King's College, and, in the distance, looming up old St. Paul's, and past all rolling steadily old Thames, a group of sights and wonders, which few cities in the world could equal.

Then perhaps book-collectors might agree that "the Embankment" was the "happy hunting-ground"; for, thank Heaven, our bookstall keepers are still simple enough to allow an outsider occasionally to pick up a bright-back cheap, or even make, at rare intervals, a *trouvaille*.

Paris.

"L'AVENUE DU GRAND CORNEILLE."

IT is not long ago since we announced the approaching demolition of one of the old quarters of Paris for the purpose of piercing the new Avenue de l'Opéra. Now that the work is in full operation, the public take great interest in it, and the papers speak much of the future beauties of the new opening. But no more happy suggestion was surely ever made than that by M. Augustin Thierry (the nephew of the well-known author), who, in a warm letter to the *Gaulois* (characteristically enough termed by the *France* as *jolie*) proposed that the new thoroughfare should be named the "Avenue du grand Corneille." It will be easily understood how apt this title would be, running as the avenue does from the Opera House to the Théâtre Français, where still his works shine above all others, passing also as it does within a few feet of the spot hallowed for so many years by his presence. The idea was immediately taken up, and the Parisian press have unanimously welcomed it. We hope that the municipality will carry the idea out. There may be difficulties, legal and documentary, but we again hope that these the intelligent management which arranges so much that is useful and beautiful in this capital will get over, and that the new opening will be called the "Avenue du grand Corneille."

JULES JANIN'S SALE.

THE sale of Jules Janin's collection was not for the industrious hunter of the outdoor book-boxes exposed on the embankment of the Seine, whose owners, however, know pretty well how to value a rare edition, and perhaps may be found enriching their *al fresco* stock at the sale of "the tawdry man of genius," as Thackeray, thirty years ago, called Jules Janin.

It will be remembered that on the death of the well-known critic, his almost equally well-known widow, offered the library to the Institute, on condition that the collection, bearing the name of her husband, should be exposed in a separate room; the regulations of the Academy not allowing of this, the offer was declined, and before an understanding could be come to, Madame Janin died. Thus it is that the famous library of the critic, who for fifty years past, in his Monday *feuilletons* in the *Journal des Débats*, charmed and delighted the literary world, has come under the hammer of the auctioneer.

This sale was a great treat to a certain class of bibliophiles, but, let it be remembered, that it was not a matter of old books, precious by their age or rarity, though it is true there are some Elzevirs and others in the catalogue. What makes Jules Janin's library so valuable is rather the anecdotic details attached to each of the books, for the most part modern, which the owner loved so to handle.

Jules Janin was a passionate lover of those beautiful books, such as Motteroz, Claye, and Jouart print only a few copies of. His taste was known by the authors, who, to ensure their works being accepted, often, at great expense to themselves, sent the "prince of critics" a copy specially printed on large-sized China paper, beautifully bound, say by Capé.

Thus it happens, that most of the books which composed Jules Janin's collections are unique copies, adorned in many cases with original drawings, and in every case with some autograph note from the author, added to by the possessor. Jules Janin's library thus contained a copy of nearly every French work of note which had appeared during the half-century that his name was prominently before the public, and in looking over the valuable catalogue, which contains no fewer than 1,375 lots, and which gives interesting extracts from the dedications or autographs, either of the author or of Jules Janin, we find a number of well-known names.

There was a copy of Béranger's works, to which was added the whole series of prints which Janin had taken from the different editions published of the famous French poet; the copy otherwise is superb, it is printed on large-sized Dutch paper, and is bound by Capé. Béranger having heard that Janin possessed this treasure, requested to see it on one occasion. Janin hastened to send it him, and the poet, after having written the following lines on the first page, sent it back to its owner:—

"My poor daughters, return to him who has so generously sheltered you. See, in spite of your little merit, how splendidly he has dressed you, you who habitually go about in such poor attire. Ah! thank the good Janin, who, knowing that your old father had not the means to dress you out so richly, has taken on himself the expenses of your *toilette*, and in spite of so many people interested in your downfall, has the courage to adopt and defend you. Such generosity is rare to-day. Republican as I am accused of being, let my gratitude be assured to the king of critics.—BÉRANGER."

SANITARY STATE OF THE WAR OFFICE.

THE commission which has been appointed to inquire into the state of the War Office, consisting of Sir William Jenner, Dr. Muir, Dr. Seaton, and Mr. A. B. Mitford, have made a report to the Prime Minister, which was issued last week. The commissioners state that they have examined the whole building from basement to roof. They found on the several floors water-closets with no efficient means of ventilation. These have been condemned, and will be replaced by others to be built in the garden. Several lavatories are complained off as emitting bad smells, and the committee believe that noxious gases must from time to time escape from the pipes which open into the drains. The overflow pipes open into the soil pipes. Some of the cisterns supplying the water-closets have taps, and are available for drinking and domestic purposes. In one case such a cistern is habitually used. There is a special cistern for the domestic supply, and an order issued that the cistern only should be used, but the order has not been obeyed. They say,—"The ventilation of each room and passage should be at once taken in hand, every case being treated specially. We would, however, recommend, in every instance, that the ventilators introduced should be of such a nature as to be beyond the control of the occupants of the room, and so constructed as not to create a draught. To render the air of the rooms less foul we advise that rooms be set apart for luncheons, and that a special hour be fixed for the meal. The windows of the rooms should be freely opened by a porter during the absence of the occupants. It should be borne in mind that these suggestions, if carried out, will, in our opinion, only mitigate evils, not remove them."

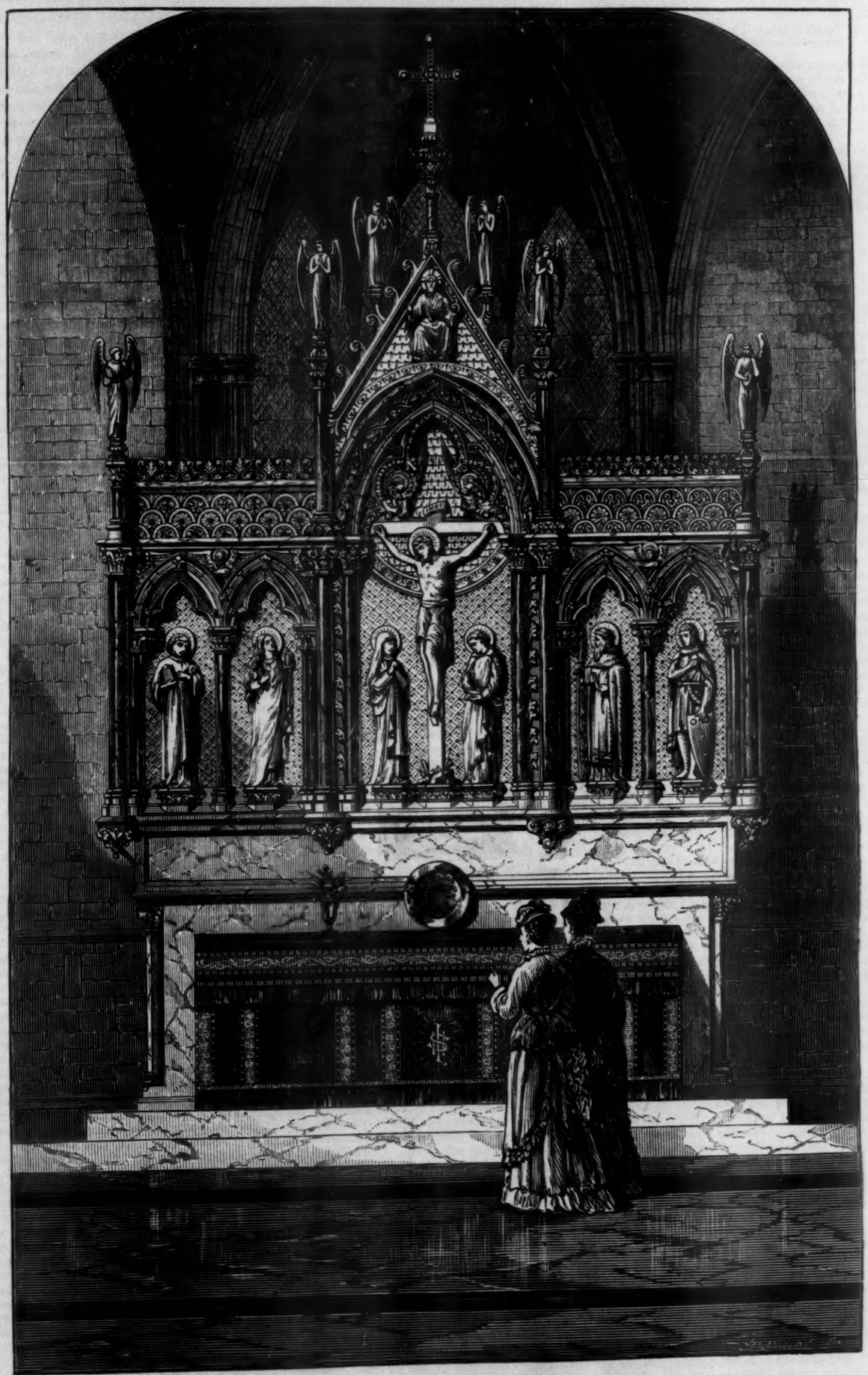
THE MYCENÆ TREASURES.

ON the 19th and 20th of February the articles forwarded by Dr. Schliemann to Athens were, to a very large extent, exhibited to the officers of Her Majesty's fleet now at the Piræus, and to several *savants* and archæologists then in Athens. Dr. Phené, F.S.A., sends us information of the great beauty of the golden ornaments, and the elaborate devices wrought upon them. Having made this inspection of the treasure trove, he proposes to visit Mycenæ, and the various parts of the Peloponnesus and Asia Minor, recently productive of archaic treasure.

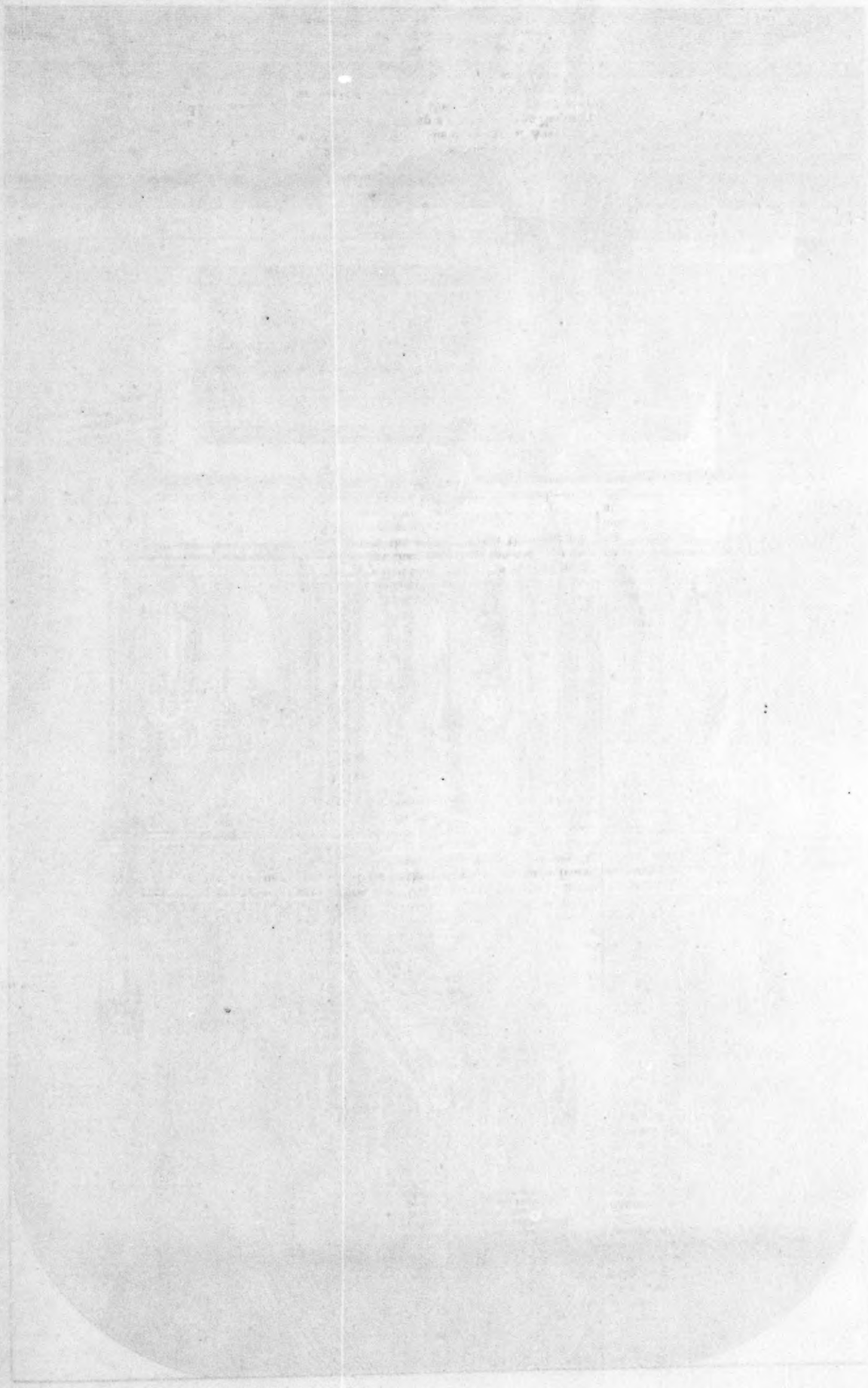
The Norfolk and Norwich Hospital.—The efforts of the Prince of Wales and the Earl of Leicester to promote the movement to enlarge the Norfolk and Norwich Hospital have resulted in the determination of the governors of the institution to build a new hospital, in accordance with a generally expressed wish of the subscribers. This course was decided on at a meeting of the governors held on Saturday. It is estimated that the new hospital will cost 50,000*l.*, and 43,000*l.* have been already subscribed, including 13,000*l.* of Lord Leicester and the Prince's subscribing.

MONUMENT OF THE DOGE VENDRAMINI, VENICE.—LATTER PART OF FIFTEENTH CENTURY.

[See p. 225, *ante*.



THE NEW REREDOS, SALISBURY CATHEDRAL.—SIR GILBERT SCOTT, R.A., ARCHITECT.



REREDOS, SALISBURY CATHEDRAL.

NOTICES of the recent works in Salisbury Cathedral have appeared on various occasions in our pages. In our present number we give a view of the new reredos. It is composed of Alabaster, with columns of coloured marble. The parapet has a jewel in the centre of each circle. The arch above the Saviour was suggested by the entrance-arch to the Chapter-house, Westminster. The whole has been executed by Messrs. Farmer & Brindley, from the design of Sir G. G. Scott.

THE DECORATION OF INTERIORS.*

EVERY thoughtful architect who has a building of whatever size or character under construction according to his own plans, and who is about to decide upon the decoration of the rooms and passages himself, rather than leave it to the mercy of the ignorant or unsympathetic plasterer or decorator, finds he must go upon one of two principles. He must either proceed to decorate the interior according to the most approved models in past ages of the special style to which his building is supposed to belong, or he must design a new decoration in the best possible conformity to the respective uses which the different portions of the interior are intended to serve. Of course, this may have been already settled before the elevation of the intended building was produced; therefore, if the building is desired to be a reproduction of something which has gone before, the interior decoration must carry out that desire; while, if the design is to a less or a greater extent invented, the interior ornament should harmonise with the original plan.

I know it will be considered by some architects as little less than heresy to assume that there are these two modes of procedure open to us in the decoration of rooms. The laws of construction, they say, are so inexorable, and the rules of art have been so fully laid down by the finest masters, and have been so perfected, that it is mere presumption to suppose that any young architect can go at once and invent a new style. This is, no doubt, to a large extent correct. Any man who despises the laws of art and of beauty which belong to the severally great and well-defined styles of architecture, may be certain only of this, that however great his industry or splendid his talents, he will never make a successful architect, or leave any noble work behind him. But, at the same time, any genuine student of any style of architecture, after studying the best examples of that style, and ascertaining the principles of art which governed it, will soon find when he comes to apply his knowledge in practical construction that he still has to make a choice of the kind I have mentioned. He discovers that the great Classic styles are in many respects inadequate to represent modern ideas and to satisfy present needs. For instance, the Greek temple, upon the model of which the Birmingham Town-hall was built, had a part of the roofs open and had no side windows. The architect, therefore, although he aimed at a faithful reproduction, was forced to call invention to his aid in order to render the building habitable and convenient for its purpose. The discovery and abundant supplies of iron and glass, the requirements of constitutional and municipal government, added knowledge respecting the laws of health requiring ventilation, light, and air; the expansive needs of advancing manufacture and commerce, the new aspect of religious thought and means of worship,—all these diverse causes, and many more, require that the architect who has any grasp of mind, and any true conception of his mission and his work, must have a capable and adaptive genius, which will enable him to employ the knowledge his studies have secured him, so as to design the building he is about to contrive in such a manner as that it may well serve its purpose, and be acceptable to those for whom it is to be erected. The architect, therefore, must do one of two things,—he must design and arrange his building either by means of new applications of old details of the style in which he works, fitting in the old parts as best he may; or he must, in following the broad underlying principles of any great style, invent new plans and new arrangements in conformity with those principles and in agreement with the uses and needs of the intended edifice.

These statements are by no means new. Even Pope, the great satiric poet, in his "Address to the Earl of Burlington," says on this subject:—

> "You show us, Rome was glorious, not profuse,
> And pompous buildings once were things of use.
> Yet shall, my Lord, your just, your noble rules
> Fill half the land with imitating-fools,
> Who random drawings from your sheets shall take,
> And of one beauty many blunders make;
> Load some vain church with old theatric state,
> Turn arcs of triumph to a garden-gate;
> Reverse your ornaments, and hang them all
> On some patch'd dog-hole eked with ends of wall;
> Then clap four slices of pilaster on't,
> That, laced with bits of rustic, makes a front.
> Shall call the winds through long arcades to roar,
> Proud to catch cold at a Venetian door;
> Conscious they act a true Palladian part,
> And if they starve, they starve by rules of art."

The poet in this passage is in no way condemning the study of past styles of architecture, but the mere slavish copyism of the forms of past styles without having in any way caught the spirit in which the old masters worked, or without having followed in the same spirit to produce a building exactly fitted to the use for which it was built; and as it is clear that the spirit in which the architect plans and elevates the building is also the spirit in which the interior will be decorated, I feel I shall do well to mention the original conception as having a close relation to my subject; and I need not go far to prove that in the matter of interior decoration the previous remarks will hold good. Mr. Owen Jones, whose great work, the "Grammar of Ornament," is the best text-book on this subject, says that he feared his book would at first have a result exactly opposite to that he intended. He intended the work to be strictly a grammar,—that is, a book to teach the rules of ornament and decoration. These rules or principles he illustrated by numerous examples, but he feared that instead of producing new ornament and decoration in the spirit of the several styles, and following the rules given, many architects and designers would be satisfied with merely copying the examples in a slavish way and applying them wherever they might seem to come in, without regard to sentiment or propriety. We all know how sadly this has been carried out. Every wall-paper for years after that book appeared was, if it had any pretension to style, a copy of some one of the very numerous examples given in that book; and even yet the same tendency is only only too apparent. If you ask those who have that work, or who study it, you will generally find that they know the examples thoroughly, but that not one in ten has read and fully mastered the text, wherein the principles of the styles are explained.

I may, therefore, without further parley, return to the axiom with which I started,—that an architect must either proceed to decorate the interior of a building with copies of ornament, as well arranged as he is able, after the best example of his chosen style; or he must design new ornament according to the principles of his chosen style, and in conformity with the uses which the different parts of the interior are intended to serve. Now, with the first of these systems, I can have nothing to do, as it is merely a matter of study and memory. No power of design is required for this, and any man, with an orderly method and fair means for study, can do what is necessary on that mode. Certainly a few inconveniences may occasionally arise. For instance, the Greek votive wreath, usually placed on ancient tombs or altars, may re-appear in a cornice or in a border of a modern ball-room; but probably the conduct of the persons who resort thither is none the more sacred on that account. Again, the columns which, in ancient buildings, were outside supports, sometimes appear within modern revivals as interior ornament, or, otherwise, sham representatives of such; and not unfrequently, the symbols of the gods of Egypt, or the emblems of Assyrian theology, follow you up a staircase to an English public building. But these inconsistencies are inseparable from the first plan of decorating interiors which I have mentioned, and therefore I will pass on to the next.

Let us suppose that the architect, in thinking of decorating upon the second plan, begins with an ecclesiastical building. As the Classic temples were lighted only by the roof or the entrance-door, we will assume that he sets aside these styles as being in spirit unsuited to modern worship. Other reasons of climate might be given, but these would be chief as respects the interior decoration. Chaucer, speaking of the temple of Mars, in his noble tale of "Palemon and Arcite," says:—

> "The northern light in at the doore shone,
> For window in the wall ne was there none."

But then he proceeds to describe most graphically a series of powerful frescoes which could only have been seen very indistinctly even on a bright day. This mysterious gloom, however, may have been appropriate to the dim profanities of Mars idolatry.

The architect who is about to plan a modern church hears the modern cry, "More light, more light," and therefore elects to design his edifice upon the principles of Gothic art in its best periods. The columns, the roof, the windows, we will imagine settled as belonging to the original plan of the building, and the stained glass we will suppose so managed as to give within not the "dim religious light" which belongs to old and superstitious periods, but a sweet bloom, an illumined glow, which allows every worshipper to behold every act of worship and to join in it. We will leave the fittings and furniture, to commence with the floor. The tiled and mosaic pavement, which has always been a characteristic of best styles of art would surely enter here. But while the colours are bright, they should be always secondary or tertiary colours, the primaries being left for the windows, furniture, or more lofty positions. Again, the transitions of colour should never be too violent, as nothing is more offensive to the eye of true taste than the idea of unevenness which is given by tiles of strongly-opposing colours. This is too common an error made for the sake of effect. Then, again, it is a serious mistake to use upon tiles the heads of angels, saints, or other human beings, as no greater degradation of such subjects can be perpetrated than placing them in the floor, to tread upon them; and in reference to this I will take the liberty of expressing my surprise and regret at finding in the otherwise excellent tiling of the chancel of Worcester Cathedral that the outlines of kings, bishops, or saints, founders of the cathedral, appear in grey medallions. I have seen Scripture subjects similarly treated; and although great authorities have been cited for it, I cannot see any reason why because mistakes were made in taste, even by the great men of old, we should blindly imitate their mistakes as well as their greatness. Monumental brasses are in a different case, because the body of the deceased was supposed to be buried under the spot where the brass was placed to record his name and circumstance, and therefore the brass served the purposes of preventing persons walking over his remains, of perpetuating his memory, and inciting those pious persons who observed it to utter a prayer for his soul. I will therefore still venture to condemn tiles containing human figures as quite improper for paving. The old monks frequently placed effigies of the serpent or Satan on tiles, as being desirable to tread under their feet; likewise at times they placed their own enemies, or those of their church, in such unenviable positions. But possibly those freaks will hardly nowadays be imitated. Another fault in some tiled floors, I find, is that of placing texts of Scripture as borders. If we, as Christian worshippers, build churches to the author of the Bible, surely it is an act of gross inconsistency to place portions of His word in positions where we shall walk over them. Yet I saw even in the large entrance-hall of a wealthy ironmaster, one of Minton's finest tiled floors divided and bordered with passages from the Book of Proverbs. The ornaments of tiles should be chiefly geometric forms, systematic running ornaments, and arrangements of symbols derived from those humbler forms of vegetable life which carpet the earth's surface.

Coming to the walls of the church we are considering, we find a new spirit must animate its decoration. When in old times the light was dim, and the interest, the glory, and the worship all centred in the altar or communion,—then it did not much matter about the walls of the main body of the building. But now that a church must be lighted well throughout, now that gas affords an artificial light of power and brilliancy, the interior walls require decoration. I was glad to find this fact recognised in the beautiful new Roman Catholic Church of St. Walburge at Preston,—an edifice of the purest style, with one of the most perfect spires in the kingdom. The light through the exquisite lancet windows is abundant, and a pretty geometric ornamentation relieves the monotony of the otherwise dull inside surfaces of the walls. On going over it, I

* By Mr. J. W. Tonks. Read at the Birmingham Architectural Association.

remarked that more lofty symbols and figure-subjects were proper for the church walls, but it was explained to me that the poverty of the congregation had prevented their adopting them. The noblest and finest decoration for church interiors is undoubtedly the fresco. A superb specimen of this is to be seen in the new patented process of Mr. Gambier Parry, as shown in the frescoes of St. Andrew's Chapel, Gloucester Cathedral, executed by Mr. Parry himself. The figures are noble yet simple, and the ornament throughout symbolic. Yet even here I could not help observing one instance of a too slavish adherence to one of the faults of our forefathers. It is in the painting of imitation drapery or tapestry. The age of tapestry is gone; we never wish it to reappear, and the attempted imitation in colour of a manufactured article not pertaining to a human figure, or having any necessary reason for its presence, is a mistake in art.

The complete fresco picture is, however, not always obtainable from its necessary costliness. And as a specimen of a much cheaper, yet very beautiful, kind of church wall decoration, I would refer you to the interior of the chancel of the Collegiate Church of St. Peter at Wolverhampton. The modes of the process I have not time to describe, but the result is a series of outline illustrations of the parables of our Lord, finely drawn, the lines being of a deep chocolate tint, and the only numbers being an occasional nimbus in gold, the tinted blue of the sky, or a slight differencing of several kinds of drapery or fore-ground. The subjects are divided into panels by bands of coloured tiles, and each parable has a line of Scripture text to explain, or rather to lead the mind to consider the story, as depicted to the eye. One great advantage of this system is that, while the effect is full and rich, there is nothing in the decoration to interfere with the sense of flatness which a wall should convey to the mind. The small church at Newlands, near Malvern, may be objected to by some on account of the spirit of Ritualism which pervades it, but every genuine art decorator will be delighted with the interior of the wall divisions, all of a pure ornament, in simple chocolate outline, the large spaces in which all round the interior are being rapidly occupied with Scripture subjects, treated with a noble and severe simplicity which is most accordant with our highest conceptions of divine things.

I find this topic enlarges before me as I go further into it, and, fearing to exhaust your patience, I must hurry on. Leaving, therefore, the matter of church decoration with these few imperfect hints, I will now ask you to think upon the interior decoration of public buildings and of private dwellings. Burke, in his "Essay on the Sublime and Beautiful," says that a preponderance of gloom and shadow is the cause of beauty in large rooms. This may be the case if we look at immense interiors with the eyes of the ancients. The Egyptian, Assyrian, Greek, and Roman peoples were so born, educated, and shrouded in mystery, that gloom and shadow were beautiful to them, as being in sympathy with their natures and with their minds. And Edmund Burke was so imbued with classic taste, that, in spite of his powerful genius, he seemed unable to escape from its trammels. In more than one sense he,

> "Though born to the universe, narrow'd his mind,
> And to party gave up what was meant for mankind."

I feel sure that could he have escaped from the Classic party, he must have seen that to us inquisitive light-loving, and free-thinking, and more outspoken moderns, gloom and shadow in our public buildings are not beauties, but that they are faults, nuisances, and blots. The more light we can have in a great hall the more beautiful that hall will be if there is anything in it worth seeing; and any hall which depends for its beauty on gloom and shadow is utterly false to the spirit of the age. I would fain go to another great authority for definition, and it is but fair to the mighty genius of Edmund Burke to say that he did not go fully into the subject before us in his essay, but treated it, as it were, in passing. But Sir Archibald Alison, in his essay on "The Principles of Taste," lays down several principles which I believe likely to be of much service to architects in reference to the decorations of interiors. He first of all urges the importance of producing in a room of any size one pure and unmingled expression of beauty. That pure, unmingled expression should be the best artistic mode of conveying to the mind of every person entering it the sense of fitness to the use which the apartment is intended to serve. He further resolves this sense of beauty into two kinds, a positive and a negative. The negative sense of beauty he believes to be produced by the proportions of the room,—its length, breadth, and height. The positive sense of beauty is produced by the more or less close relation of the decoration, fittings, and furniture to the use the room has to serve. I am forced in some degree to refer to this negative sense of beauty because it is the foundation upon which a more positive beauty rests. If a large hall is too wide in proportion to its length it gives an unpleasing sense of insecurity arising from an involuntary impression that the weight of the roof is not adequately supported; so that unless there are assisting pillars introduced such a room would never convey a reposeful sense of beauty, however elaborately decorated. Again, the proportions of a council chamber, of a hall suitable for concerts and musical gatherings, of a place of public meeting, are all relatively different. The proportions of rooms all express their several distinct emotions. A long, wide room with a low flat roof, may look well and suitable for a museum or a range of offices, where the study of papers, books, or objects of moderate size is the chief concern,—but such a room will never look noble.

Again, a great public hall where the main purpose is that men in large numbers should meet impelled by one absorbing purpose, and to be swayed by one common impulse, or to be moved by the burning words of an eloquent orator, should be mighty in its proportions, lofty, and its decoration and architecture, so far simple, unbroken, and harmonious as to please, and yet in no way detract from the emotion of the hour, or carry the eye away from the central figure. This is why our Birmingham town-hall is so splendidly adapted for public meetings. The same reason, however, would show how thoroughly unadapted the great hall of St. George in Liverpool is to such a purpose, even if considerations of sound did not present a fatal bar. The deep recessed side arches, the pillars, and statues, all divert the attention and distract the mind. On the same principle a council chamber, where fifty or sixty members meet to discuss and deliberate, should not be too lofty in character or too stately in decoration. If it is, the result will be a perceptibly freezing effect upon those who rise to speak there.

If, then, we take for granted that the architect has secured for his interior that negative beauty, in character, form, and proportion which is yet so essential a foundation for its positive charms, we will now watch him as he proceeds to decorate it. Take the House of Lords, for example, with its tracery, statues, and gilding. All the principles of Gothic art are perfectly carried out, yet you feel you are rather in the lady chapel of some fine cathedral than in the hall of debate of the British senate. You feel, without knowing it, that the conception is erroneous, and, therefore, you do not wonder that, even as to the first requirement of a deliberative meeting-place, the conducting of sound, it is a failure. Its proportions are unsuitable, and the elaborate yet serious decoration tends to give a stiffness and severity to the debates there which must be a constant injury.

The House of Commons was a great failure at first, but it was so important that discussions there should be well heard that a false glass ceiling has been put in. By this means the most beautiful Gothic tracery and roof work have been hidden from view, but the result is a gain, not a loss. The proportions of the room are now appropriate; the sense of comfort pervades it; and the decoration, being less ponderous than that of the House of Lords, gives an air of dignity without pressing upon the mind that religious awe which strong projections and deep shadows in interiors seem to give.

Two large rooms I have mentioned before,—St. George's Hall, Liverpool, and the Birmingham Town-hall,—have just been newly decorated inside, and I think we may derive a few useful hints from the comparison. The Liverpool decoration is pretty and accidental. It is evidently executed by a respectable decorator, who thought of the individual parts rather than the general effect. He knew how to put the proper colours in juxtaposition without offending good commonplace ideas of taste. The marbles, real and imitation; the primary, secondary, and tertiary colours, all are neighbourly one to another, none too harsh or violent, and the result is a charming ambiguity of effect, which means nothing more than cleanliness and good paint. But when you go from this interior to that of the Birmingham town-hall, you are met by an exactly opposite impression. There may be glaring defects, if you will; but there is an audacity about it which proves the presence of an idea, which is far better than the barren and decent tameness of the previous example. Let us examine it. First, we note that the object of the decorator is to ascend from the floor to the ceiling by successive stages in purity of colour. The lower colours are chiefly tertiary; chocolate, citron, and olive, being compounds of the secondaries; the upper walls have a preponderance of secondary colours, greens and purples, with gold always to harmonise; the colours of the ceiling are chiefly primary, pure and delicate in tone. Then, as the decoration rises in tenderness of colour, it also rises in type. The lower wall-forms are simple diapers, elementary and geometric, with divisions and borders of simple repeated forms. But as we rise, we come to plant-forms of a higher order, treated with graceful conventionality. The result is, therefore, decisively grand. Of course it has its defects, as every bold effort is likely to have. The portraits may be in questionable taste, and the fine proportions of the hall may appear in some respects to be broken by the divisions of the wall decoration. But the latter fault would have been avoided had not the artist given way a little in that particular to that evil love of classical shade, of the beauty of darkness, to which Edmund Burke referred. Had the chocolate and other deep tones of the lower walls been in the same colours, but in much lighter tints, the most beautiful result would have been obtained, and the unity of the parts would have been complete. I wish one thing more. I long for the coming of that noble thinker who shall give to us motives of decoration for our public buildings which are symbolic as well as æsthetic. When our ornament begins to satisfy the mind as well as delight the eye, when all decoration gives a lesson and explains the use of the room it is designed to adorn, then we shall have that new age of architecture for which as yet we have looked in vain.

We will now go into rooms of less magnitude. I need not enlarge on the proportions of rooms in relation to their uses, as the rules before referred to will apply as well to dwelling-houses as to public buildings. But, unfortunately, when we come to decorate we must consider the ornament in relation to one special characteristic of modern life. Nineteenth-century life is a life of constant changes, and thus houses are constantly changing their possessors, while their possessors are constantly changing their furniture. In old times walls of dwelling-houses might be decorated with mural paintings; but now-a-days, if one owner indulged in any such luxurious fancy, his successor might push a huge piece of upholstery against it, and then the whole thing would be so absurd that the next step would be to paint it out. The only place then left for permanent decoration would be the ceiling; and the plan of painting on ceilings is one of the mistakes of former times, to my thinking. The unpleasant sensation arising from the effort to study elaborate figure-painting on a ceiling is quite enough to prevent such art-work being appreciated, even at its true merits, while the fatigue and injury to the artist are a genuine ground of objection. Ornament on the ceiling should either be geometric or floral, but figure subjects are certainly out of place.

We must conclude, then, that the finest imitative compositions, whether paintings or statuary, lie beyond the province of the decorator of the interiors of dwelling-houses, and form part of the furniture of rooms. The work of the decorator must therefore be in keeping with this idea. His ornament should be flat in treatment, so as to convey the idea of a wall; it should be a plane upon which lights and shadows may fall, and, therefore, should have no lights or shadows in it. There should be no effort at brilliant colouring. In the same way that the back-ground of a picture is usually subdued, all colours being less distinctly visible, so the wall decoration, intended to be the back-ground of a room, should be quiet and harmonious; never obtrusive. The tints must, of course, be varied indefinitely for various objects for which rooms are set apart; but I venture to assert that they should always be tints of light, not hues of shade. The drawing-room may be cool and pure, the dining-room may be warmer and richer; the bed-room may be sprightly and gay like morning flowers; but none should be sombre or dark. The heavy-toned dining-room papers, which are even now so fashionable with many people, are

only suggestive of heavy surfeits and bad digestion. Dr. Dresser, in his book on ornamental design, gives two illustrations to show the effect of ornament upon the emotions. They are intended to give the effect of evening. One is that of a neutralised ground, with a star peeping in the midst of it, while snails are creeping up the plants forming the decoration. The other is an intensification of the same notion; a coronet of stars against the same neutral ground, and a symmetrical rendering of a diabolical-looking night insect. This may be good as far as it goes, but it only serves to show how mistaken such vagaries would be, if applied to wall decoration. If the walls of any bedroom were ornamented in the manner above described, the effect would be unhappy by day, and unendurable by night; the children would be too frightened to enter the room, and no nervous women could long inhabit it. In the bedroom we want coolness and light. No sight is more calculated for enabling us to wake quietly and happily to the duties of the day, than a pretty and cheerful bedroom. And we must remember that the decoration of the chambers will not be observed most closely when we retire to rest, jaded, and perhaps half asleep, but when we open our eyes in the morning, and take a first glance at the awakened world. So in the dining-room, the cheerful, yet not too darkly decorated walls, assist and do not detract from the brilliancy of the well-laid table.

Depth of tone in wall decoration should be avoided, for another reason. Darkness always contracts rooms, and the larger the amount of light reflected from the walls the larger the room appears. You may any time observe this by repapering a room in a lighter tint. It grows larger instantly. Again; even on the score of health, the light and cheerful room has the advantage. To take a pointed case, I heard of a manufacturer who had his workrooms where a number of girls and women were employed, not decorated certainly, but tinted with a heavy yellow wash. The people employed were almost constantly suffering from severe headaches. He was advised by a physician whom he consulted, as these matters were, in the aggregate, a serious loss to him, to simply whitewash his walls. The result was surprising. The work was in every way better done, and the headaches became comparatively rare. Now, I would not argue from this that the interior decoration of manufactories should be simply whitewash, but it adds to the burden of my song, the moral of its story, which is, that in our interior decoration we want "more light."

We know that the tendency of modern house-building is to enlarge the windows, to diminish the boldness of cornices, to reduce projections of chimney-breasts or anything else which interferes with the full effect of an interior. This may go too far, until a house may be compared to a concert-hall "star,"—all shirt-front and effrontery,—but the movement in itself is a good one. It signifies a thorough revolt from some old architectural heresies, and the interior decoration should answer to and explain the movement. The first object should be to decorate the room in such a manner as to render it most suitable for the purpose for which it is intended. The manner being thought out, the means will not be wanting to an artistic mind. The symmetrical borders which divide the principal parts, the unobtrusive but interesting mosaic of the hall pavement, the delicate treatment of the cornice, and the pure tints of the ceiling will answer to his needs.

And as one matter leads to another, as we, in our desire for harmony, think the paint-brush will do away with anything out of keeping in wood or stone, let me enter a protest against defacing the doors and other woodwork. If we assume that a good wood is used in the inside fittings of our house, do let the genuine and often exquisite grain of the timber be seen. We have daubed and decorated our woodwork so much that the art of arranging fine woodwork symmetrically is likely to be lost among us. Yet when I was in Prague, several years since, I saw, in the Radschiner Palace, the oaken floor of the ball-room, one of the finest in Europe, where all the artist was shown in the charming mosaic of different-coloured oak, and laid as perfectly as if the floor were a sheet of glass. But we have Brussels carpets, some may say, and therefore are independent of that class of decoration. But what of our public halls?

The art of the wood-worker and wood-carver is one which has been too much neglected in interior decoration. I saw a happy effort to revive it in a lady's pretty boudoir, in the house of a wealthy ironmaster in North Staffordshire. It was called the "Oak Boudoir," and very properly so, for the floor, ceiling, walls, all were in oak. The floor was inlaid with oak of various colours, with simply a fur rug here and there for comfort to the feet. The walls were divided into panels by chaste ornament, and carved groups, illustrating the seasons, in the centres of the panels; the cornice was simply, yet skilfully carved, the ceiling in a paler oak, and very quiet. This lovely little casket of a room had an ample window, framing as sweet a picture of terrace, hanging gardens, lake and hill country in the distance, as one could well desire to see. I offer the result as a hint.

Having thus, in a discursive manner, wandered through many rooms, and having, I know, done but scant justice to so large a subject, I must now leave my bare suggestions to your practised judgment. I know how much easier it is to criticise than to perform; how much simpler it is to point out a line of direction than to walk in it; but it is in the belief that any suggestion, however humble, may still be a help to some member who may more fully see its bearings than he who gives it,—it is in the consciousness that we are on the eve of great changes in art and architecture, and that every idea thrown out may help, in its small way, to bring it about,—that these remarks have been made. The change of style and the fact that our present civilisation must soon have a style of its own, and must not much longer be content with pilfering details from the monuments of past ages, is now generally acknowledged; and if the architect and the decorative artist resolutely set themselves to the task, it must in due time be achieved. It will not be the work of one man or of one year, not perhaps even of one century; but it will be by an educated,—a thoughtful, perhaps,—and almost unconscious movement in accord with the spirit of the age. I venture to bring my small gift to your store, and can only say in conclusion that, if it should stimulate any fresh exertion in this direction, my expectation will be more than fulfilled.

SCENERY IN STONE.

A LITTLE cloud of artistic indignation was raised not long ago by Sir George Bowyer, who expressed a gratuitous conviction, in the *Times*, that the Victoria Tower ascended four hundred feet in the air merely to carry a flag-staff. Not that architects were indignant. They admitted the fact; and with easy logic explained how that gigantic edifice, of several useless stories and a central stair, "marked" the Royal Entrance to Parliament. But it is equally indisputable that most of the pretty scenic effects, which form the ornaments of many a new building in the very heart of London, served our mediæval ancestors some practical purpose. The uses of a tower have lapsed, both from the spread of invention and the division of common into individual usages. The Mussulman from the balcony of a minaret still calls the faithful to prayer; and, among Christian communities, a belfry was as necessary to each parish, or each village, as a watch is to each individual at the present moment. The chimes marked periods of labour and diverted the hours of relaxation. One bell sufficed to extinguish the lights of a hamlet; another assisted the parting soul in its passage to eternity. To the pilgrim and the wayfarer, a church-spire was a signal of comfort and encouragement, since it denoted a place of rest and refreshment. Over the gables of a church it signified a spiritual force acknowledged by all. From the summit of a tower, or a still loftier turret, the sentinel watched the approaches to a feudal castle or a fortified town; thence the vassals of a noble, or the citizens of a municipality, were warned of coming danger. From tower to tower, even at the beginning of this century, messages were sent over the hills of Languedoc and Auvergne. Along the trunk-road from Calcutta to Allahabad there may still be seen lofty brick shafts, from the top of which our great grandfathers communicated with each other. But now, in the midst of hundreds of miles of houses, of thousands of homes, a lofty tower emerges from a new edifice, principally to "break the skyline," as a feature of architectural composition or the apex of a group of buildings. So, hard by, there is rising, some 300 ft. heavenwards, a beacon of security to ourselves and to the stranger within our midst. It will mark, so runs the argument, the Palace of Justice. The friendless and forlorn, robbed of a patrimony, or deceived by that limited liability which offers 25 per cent. interest for cash, seeing afar off the sign of the Temple of Equity, will bend their steps towards it. But if the technical argument be worth anything, there must occur an awkward suspicion that, such a tower ought rather to be placed over the office of a convenient solicitor than over the courts themselves; for in a land of perfect equality before the law, neither poor nor rich can enter the judicial precincts except with a customary introduction. Or if this tower be intended to hold a clock and bell, is it forgotten that St. Dunstan's, St. Clement's, and St. Mary's are close at hand? In every neighbouring shop there is a timepiece; every ratepayer carries a watch. Or, perhaps it is a huge ventilator, through which the odour of parchment and the breath of litigious warfare will be carried to the upper air. But, surely that desirable result can be obtained with less complicated machinery, without causing all the surrounding chimneys to smoke, and obscuring the windows of opposite owners, too magnanimous to demand the pecuniary compensation, which, in the absence of all law upon the subject, they have a legal right to claim.

Nor are our clock-towers, as it is the fashion to build them, convenient or comfortable. That of Westminster is either too lofty or it is not tall enough; the tongue of Big Ben wags too loudly or it is not sufficiently sonorous. Those who, in the immediate neighbourhood, wish to see the dial are compelled to strain their necks, or to recede; and the limits of human vision often prevent what the open river and embankment would otherwise permit. If on the land side of the tower a good view of the clock is now obtained it is due to the accident that Palace-yard has not been inclosed with the buildings originally contemplated. Those who, at a distance, desire to hear the time are favoured only at certain seasons by the connivance of the wind or the lull of street tumult. Meanwhile the deliberations of the most august assembly in the empire are interrupted every fifteen minutes by a noisy vibration, the like of which were it attempted even once in Westminster Hall, by the grinder of a barrel-organ, would be received with amazement and instantly hushed.

The kind of reasoning that prescribes the addition of a tower to a modern building favours, both inside and outside of it, the compilation of superficial ornaments which, like the "false wit" of literature, are pedantic allusions to an exploded mythology or a primitive social system. In a rude state of society the human method of expression has so far assimilated to that of the brute, as to have depended upon signs and gestures rather than upon words. The symbolism of the early Christian faith, portrayed at a later period upon stone, wood, and glass, was largely based upon Pagan tradition. "Among the first Romans," says Gibbon, "the clenched fist was the symbol of a pledge or deposit; the right hand was the gift of faith and confidence; the indenture of covenants was a broken straw; weights and scales were introduced into every payment; and the heir who accepted a testament was sometimes obliged to snap his fingers, to cast away his garments, and to leap and dance with real or affected transport." One social custom of Antiquity took in the Middle Ages a spiritual form,—the relations of patron and client continued, but the client, if still a parasite, was a devout one, and the patron was a saint. Then devices and armorial bearings were absolutely necessary, both on the high road and in the town. The armed knight, with visor closed, could be recognised only by the marks upon his breast and shield. The common people knew the merchant's counter, not by a name over the shop-window or a numeral on the house-door, but by a sign projecting into the street; and a crude representation of some object, or a roughly-hewn image, spoke to gentle and simple in a popular tongue. The revival of a like kind of symbolical ornament, at this time of general education, is the naïve endeavour of many well-meaning people. I can recall no parallel or precedent with which to compare it, except perhaps Swift's academician, who sought to economise speech and abolish language by carrying about with him diminutive models of everything usually mentioned in the intercourse of ordinary life.

Although the reversion to an old form of construction, or to an old fashion of ornament, may be attended in public buildings with nothing worse than the reproach of affectation, it becomes vastly different when the practice is

applied to private dwellings. There can be no doubt that a picturesque pencil could convert the house-fronts of Drury-lane or Bedfordbury into things of beauty, than which the Jews' Quarter at Frankfort, or the gables of Lisieux, would not be more quaint or delightful; and to judge from much that is passing around us, a certain section of a school, if it can only transform the streets into the appearance of "Chepe" or "Old Bourne," as scene-painters are now pleased to depict them, is not unwilling to sacrifice science to art in the economy of house-building. But a wise architect first determines the internal distribution of his work; and he does not think of superficial adornment until the nature of the construction, and the materials of which it is to be composed, are known. "Ornamental Architecture at Botany Bay"! cried Sydney Smith, "How it could enter into the head of any human being to think of pillars and pilasters when half the colony are wet through for want of any covering at all, I am utterly at a loss to conceive"! In like manner it may be urged that while the courts and alleys of St. Martin's-lane, the slums of Westminster and Soho, and a host of other plague spots, on and between the estates of great freeholders, remain in their actual condition, the common sense of London is derided with talk about the artistic value of "mellow" fronts and the æsthetic advantages of irregularity and confusion. A glance at a part of the population, even, in our immediate vicinity, suffices to show, on the one hand, aggravated debasement which shrinks from notice; on the other, "culture" which makes a great deal of noise. To aid the improvement of the town and the vast mass of its inhabitants, two schools are diligently at work: the teaching of one based upon the laws of science, that of the other upon the caprices of art. In a less learned and less artificial state of society, both in the best times of Antiquity and of the Middle Ages, these forces worked together; but that they are now arrayed against each other, and are daily becoming inimical to each other, it is difficult not to believe.

The cry, frequently reiterated, for the highest art at all times, and the purest respect for nature in all places, would, if granted, be attended with absolute refusal of many economical benefits which the science of engineering confers upon the country. To bridge the Tamar or the Menai Straits, to tunnel Dover Cliff, to span a valley in Derbyshire or Devon, is, with soft sensitive souls, who do not scruple, however, to pronounce their opinions in public, to deface the work of God. The sort of argument implied, if not employed, by them, in the matter of new thoroughfares, for instance, is broadly stated,—Because water in its flow round hillocks and over dales takes a winding course; because old highways and streets, from the claims of property as well as the fluctuations of soil, twist and turn about; therefore a new street or an artificial water-passage should follow the curve of beauty and grace, rather than a direct line from one locality to another. Although in prosaic minds cleanliness and godliness are allied, the school of the picturesque courts anything, even soot, which will take from a new building the damning evidence of its youth. A newly-painted window is said to be crude and garish until a coating of dirt has blended its many colours. A glazed or vitrified surface for the outside of a town-house, in fact anything that will wash, is denounced as inartistic. But much as it must undoubtedly shock poets and painters, the world is getting, year by year, to believe in the force of utility and to fear the results of sentiment. It is worse than idle to censure the ugliness of engineering innovations; for, like the "births of Time," they are necessarily "ill-shapen." When Southey, on this same subject, talked about the "unqualified deformity" of labourers' cottages, and of everything connected with manufactures, Macaulay answered,—"Here is wisdom . . . . . rose-bushes and poor-rates, instead of steam engines and independence! . . . . . Does Mr. Southey think that the body of the English peasantry live, or ever lived, in substantial ornamented cottages with box hedges, flower-gardens, bee-hives, and orchards?" The engineers, within the memory of living men, discovered the lost Greek track,—a track well worn in the Middle Ages,—and though they have not scrupulously kept to it, ugly railway stations, ugly viaducts, and utilitarian edifices of all kinds, may yet grow into a beautiful style of the twentieth century. But the votaries of scenic architecture lay by nothing for the future; they only provide the present with revivals of the past. Surely to construct the picturesque, or to buy it ready-made, is a little theatrical,—an attempt to forestall Nature and to out-run Time. At least it perplexes the thinking portion of the English people; the majority of whom, though doubtless weary of the stock compliment of their neighbours, are unwilling to repudiate the Socratic doctrine, by which they have achieved political and commercial success, to embrace a newer persuasion of sentiment.

WILLIAM H. WHITE.

GOLD AND SILVER IN KING SOLOMON'S TIME.

SIR,—Mr. Ewan Christian's note (p. 205) opens up a very interesting subject of inquiry as to the relative value of gold and silver in ancient times, on which a great deal might be said for which the *Builder* might not be disposed to find room. The more immediate question is as to the interpretation of a particular text (1 Kings x. 21). I suppose nine out of every ten persons would make no difficulty at all as to the meaning in our authorised version, and at once say that it was *silver* which was nothing accounted of in the days of King Solomon. When we refer to the Hebrew text, however, there is a certain amount of ambiguity which affords some slight ground for doubt. It stands thus:—

וְכֹל כְּלֵי בֵּית יְעַר הַלְּבָנוֹן זָהָב סְגוֹר אֵין כֶּסֶף לֹא נֶחְשָׁב בִּימֵי שְׁלֹמֹה

Vecol celei beith. . . . . záhábh ságur; ein ceseph, lo nechsháhbh bimei Shelomoh.

"And all vessels of the house (of the forest of Lebanon) *were* pure gold, none silver, *it* was not valued in the days of Solomon." The words *were* and *it* are not in the text. The verb *nechsháhbh*, from the root *cháshabh*, to calculate, to account, is in the masculine form of the third person singular, of the past tense, in the Niphal or passive conjugation. This might have afforded some clue as to whether it was gold or silver that was so lightly esteemed; but, unfortunately, *záhábh*, gold, and *ceseph*, silver, are both masculine, so that the verb may apply to either.

The personal pronouns are usually omitted before the verb in Hebrew. If the verb applied to silver it is strange that the relative pronoun *asher*, so freely used in Hebrew for *which* and *that*, should not have been inserted. If we look again at the next verse, we see the reason for the light estimation of the precious metals. "For the king had at sea a navy of Tharshish with the navy of Hiram; once in three years came the navy of Tharshish, bringing gold, and silver, ivory, and apes and peacocks." This is the reason given for the plethora, and it applies to gold quite as much as to silver. I should rather be inclined to treat the verb *nechsháhbh* as an impersonal expression, applying to both metals, really signifying "this was of no consequence in the days of Solomon."

The passage in the Septuagint runs as follows:—

"Καὶ πάντα τὰ σκεύη οἴκου χρύσιν συγκεκλεισμένα, οὐκ ἦν ἀργύριον, ὅτι οὐκ ἦν λογιζόμενον ἐν ταῖς ἡμέραις Σαλωμών."

The question here arises as to the meaning of λογιζόμενον. The ordinary meaning of λογίζομαι, is to count, to take into account, to consider. Liddell and Scott in the various illustrations they give, have none implying estimation or value.

The passage may be fairly translated,—"All the vessels of the house were overlaid with gold; they were not silver, for it was not reckoned in the days of Solomon."

The Vulgate version is as ambiguous as the Hebrew:—"*Universa supellex domus saltus Libani de auro purissimo; non erat argentum, nec alicujus pretii putabatur in diebus Salomonis.*"

Luther distinctly applies the depreciation to silver:—"Alle Gefässe im Hause vom Walde Libanon waren auch lauter Gold; denn des Silbers achtete man zu den Zeiten Salomos nichts."

Osterwald takes the same view:—"Toute la vaisselle de la maison du parc du Liban *était* d'or fin; il n'y *en* avait point d'argent; *l'argent* n'était point estimé pendant la vie de Salomon."

Diodati, in Italian, gives a corresponding translation.

The author of the article on *Keseph* (silver) in Kitto's Cyclopædia (Dr. Lindsay Alexander) seems to take the same view.

I have endeavoured to give a general solution to a somewhat ambiguous passage; with what success your readers must judge.

J. A. PICTON.

VALUE OF GOLD AND SILVER.

SIR,—It must be more instructive than gratifying to the authors of such articles as that on the "Art Lessons from Mycenæ" to find with how extremely small a share of either critical learning, or common sense, they are credited by some of your readers,—if it be proper to use the plural. To criticise the statement of a writer who must, at all events, have given some thought to his work, on the ground of the punctuation of one out of many translations and versions of an ancient book, which was written not only without stops, but without division of words, is certainly bold enough. Whether the sequence of colon and semicolon could, in any case, have the grammatical effect attributed to it by Mr. Ewan Christian, in your last number, I need not stop to inquire. In the present instance, such a perversion of the obvious meaning would be impossible to any one who had studied either the Vulgate, the Latin version of Jager, the Septuagint Greek version, or the original. Saint Jerome says,—"Sed et omnia vasa quibus potabat rex Salomon erant aurea: et universa supellex domus saltus Libani de auro purissimo: non erat argentum, nec alicujus pretii putabatur in diebus Salomonis." I need not put your printer to the trouble of setting up either the Greek or the Hebrew type; but add the words of the translation of the former by Jager, in the fine di-glott Paris edition of 1839, which closely follows the language of the Greek, and the sense of the Hebrew. "Et omnia vasa quæ a Salomon facta aurea, et luteres aurei, et omnia vasa domus sylvæ Libani auro conclusa. Non fuit argentum, quoniam non fuit reputatum in diebus Salomon." Apart from the plain grammatical sense of the words, it is contrary to common sense to imagine that the services of the sanctuary and of the palace were made of gold because gold was held in light esteem.

The question of the historic relation existing between gold and silver does not hinge on the misplacing of a colon, or the misunderstanding of a plain text. A considerable amount of information exists on the subject, as may be seen by reference to the article on "Value," in vol. iii. of Cassell's "Bible Educator," where the passage in question is cited.

TECTON.

THE HOUSEHOLD AT DIFFERENT ERAS.

SIR,—Since you were good enough to invite the co-operation of your readers in the technical inquiry which you introduced a week or so ago, with a description of the Grecian house, I shall be obliged if you will let me note a few instances of exaggeration, and almost laughable description, which are offered, under the guise of learned research, to the non-Classical public with the pretence of popularising the ancients. As you have intimated, Becker's "Charicles" is the best, and I think the first, book of the kind which treats satisfactorily of a question that, with all his diligence, however, the German scholar has not been able to settle. The translation might certainly have been better done; and, indeed, in the English version of "Gallus," antiquarian details are given in a style of heroics which no catering for public pence can excuse. Such sentences as "the deep blue of an Italian heaven," — implying almost a hereafter of nationalities,—are counter-balanced by a reference to the Roman cooking apparatus in the following manner:—

"Near the familiar flame they took the common meal."

This, of course, is not Becker, but his translator,—the Rev. Frederick Metcalfe, M.A.; and, indeed, the former ought to have sympathetic rather than rough treatment from antiquaries, seeing that more than one bookmaker has used Becker's vast collection of facts with but rare acknowledgment, and sometimes even without mention of his name. The authors of a book called "The Life of the Greeks and Romans" have sinned in this way; and though I at least am not dissatisfied with them for putting many of his facts together in a readable form, I am quite perplexed with the serious announcement made by Messrs. Guhl and Koner that a real Grecian dwelling-house has been discovered in the island of Delos. One of their proofs that the said building is undoubtedly ancient consists in the fact that it resembles nothing which is

known, or is supposed, to have formed a house such as those, even, which Demosthenes condemned. A plan is given of this building at page 83 of their book, together with a view of the "beautiful vestibule" which Vitruvius says was not used by the Greeks, but which Messrs. Guhl and Koner declare "consists of two Ionic columns between two graceful antæ." Of course, being tickled, I followed your example and scaled their plan. I found that, by allowing 3 ft. clear (very little, all must admit) between the bases of the columns forming the central opening, I obtained an area of construction measuring 140 ft. by 70 ft. This entrance portico,—almost big enough to be the inner portico of a minor temple, such as that of Nemesis at Rhamnus,—is described as leading to a "narrow passage," which, by the bye, is as broad as the portico itself. This narrow passage leads into what Messrs. Guhl and Koner call an "*aula*," and this *aula* is 30 ft. long by 5 ft. wide. The authors, or, perhaps, the translator, ought to say what is meant by the term *aula*, especially as surprise is expressed that a place 5 ft. wide should be devoid of columns. Now, αὐλη means a court, hall, or peristyle.

Moreover, the authors of "The Life of the Greeks and Romans" have constructed a plan of the early Grecian house from the description given of it by Vitruvius. They suppose it to have been composed of one peristyle; and without counting the space allotted to the garden, they have managed to cover a superficies of 130 ft. by 90 ft. Their *thalamus* reaches the colossal dimensions of 30 ft. by 20 ft. Permit me to add that the Grecian house of Marini, who is one of the best commentators of Vitruvius, is down in black and white; and by allowing your width of 5 ft. for the entrance passage the whole building covers an area of about 140 ft. by 113 ft.

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Now, sir, this sort of thing, offered up as a prayer to the gods or an invocation to the Muses, would be exceedingly pretty, and deserve the applause of even sober-minded scholars; but thrust for twenty-six pence into the hands of Demus, even Demus after his purification by the School Board,—it is almost ten to one that the talented essayists will suffer. The sacred majesty of the people objects to being humbugged. Seriously, antiquity is quite grand enough to dispense with the kind of hyperbole which may suit the morning paper, but will not bear reading leisurely in a book. The city-Dionysia at Athens was, in Becker's words, a scene of unbridled merriment and drunkenness. Troops of the *demi-monde* were brought upon speculation from Corinth; and the dregs of the town assisted in the festival. It was the Greek carnival. No married women or their daughters attended the theatre. That building, after the Greeks had seen the tent of Xerxes, was covered by an awning. No one seated in the theatre of Bacchus could see even the tops of the trees in the island of Ægina; I doubt if he could see even the pediment of the Parthenon. The theatre was faced and almost environed by higgledy-piggledy streets and houses, not fields. I doubt if Demus in the time of Æschylus was much better than Demus in an Indian city, like Lucknow or Hyderabad, before the British domination; and since you have sought in Hindostan an illustration of your opinions about early dwellings, I venture to say that the modern Hindoo and the ancient Greek have many similar customs. But to continue, neither comedies nor tragedies were played in an amphitheatre, nor was there ever such a building on the slope of the Acropolis. The Greeks were not lovers of Nature, nor did they appreciate it; that sentiment was reserved for other and less developed races of men—those of Northern Europe. I think dramatic representations in Athens took place once annually, and lasted for several days; for the ancients did not live quickly, but they took their pleasures in a heap. Anyhow, if I am wrong, I shall be very glad to eat humble pie; but Mr. Lucas Collins must descend from the clouds in which Aristophanes left him, to talk—and some of his assistants would do well to take the hint—about the Greeks, in the language of men, not of gods.

A STUDENT OF ANTIQUITY.

"A POSSIBLE CAUSE OF DANGER."

SIR,—As the *Builder* is an engineer as well as an architect, I am unwilling that his columns should be made the channel for opinions which are not based on the best engineering science. Allow me, therefore, to say a few words on Mr. Charles Hill's suggestion of danger. The earliest locomotives employed on the Liverpool and Manchester and London and Birmingham railways were driven by a pair of wheels on a cranked axle, the engines being four-wheeled. The introduction of six-wheeled engines, with the driving-wheels in the middle, without flanges, was an improvement on the four-wheeled type. Almost every possible form of combination of wheels has since been effected; and the last improvement, in the opinion of the locomotive engineer of one of our most important and best-worked lines, is the general use of six-wheeled engines, with all the wheels coupled, the diameters being 6 ft. for the lighter gradients and 5 ft. for the northern, and more severely inclined, portions of the line. The destructive action of the locomotive, whether on the permanent way or on its own structure, is greatly reduced by making the entire weight of the engine useful for giving adhesion to the rails.

With regard to the revolution of one wheel, after the engine had been subjected to violence enough to break the coupling-rods, out of exact accordance with another, nothing can be more easily accounted for. If it were the indication of such danger as your correspondent supposes, the keying of a pair of wheels on one axle would be much more objectionable. In going round curves there is a very considerable strain thrown on every axle in a train. The conical shape of the wheels was adopted in order to diminish this strain, by allowing each pair of wheels to find, as far as possible, the plane of minimum strain, by throwing the carriage nearer to the outer than to the inner part of the curve. If the wheels were not keyed on the same axle, the wheel on the inner rail of a curve would always revolve at a different velocity to the corresponding wheel on the outer rail. There is a definite and ascertainable loss of power attributable to the rigidity of a pair of wheels, and this loss of power has been purposely submitted to for the sake of additional safety obtained by the rigidity in question.

In the same way, if two wheels of exactly the same diameter, follow one another, a very slight deviation from the line of direction is enough, if the wheels are in any way conical, to make one gain or lose on the other. Any arrangement which made the one follow the other with mathematical precision would make the revolutions coincide. If one of these wheels were driven, as a means of propulsion, and the other simply ran, as bearing a portion of weight, any slip of the former on the rails, such as will always occur when the adhesion is in any way over-taxed, will throw the revolutions out of unison. But if the wheels are coupled, as is now increasingly the practice in the best engines, slip, with all its grinding and destructive effect, is in all probability absolutely prevented. When a pair of wheels gives the entire adhesion, it is easy to slip. If four wheels are coupled, slip is far less likely to occur. With six wheels coupled slip is almost entirely out of the question. There is a certain strain thrown on all the wheels of the engine at the same moment, by coupling,—a strain which, as far as possible, is equal throughout. By this means not only is the mechanical power of the engine better employed, by making it hold to the ground with the adhesion due to its entire weight, instead of to a part of it; but the vibrations and oscillations which are perceptible when a single pair of driving-wheels is employed are reduced to a minimum, and the engine is made at once more effective and more safe.

There is quite enough blindness shown with reference to the main cause of collision on railways, namely, the interference of two streams of traffic flowing at very different rates of speed, to render it important not to divert the attention of travellers and others, who are not mechanical men, from the subject, by representing mechanical improvements, which conduce greatly to punctuality, as well as, in other ways, to safety, as "possible sources of danger." ENGINEER.

Fires and Fire Insurance.—At a meeting of the Statistical Society on the 19th ult., Mr. Cornelius Walford read a paper on "Fires and Fire Insurance, considered in their National Aspects." He reviewed the various measures which had been taken, from the period of the Roman occupation of Great Britain down to the present time, in the matter of fire protection, and said those steps clearly showed that protection was merely a municipal duty, and had always been so regarded until fire insurance offices came upon the scene, in the year following the Great Fire of London (1666); since which period the municipal authorities had become more and more backward in their duty in this regard, and the fire offices from sheer necessity had come to the front and provided the protection of fire brigades, &c. Matters were now getting back into their proper shape. He traced the progress of fire insurance from its early indications in the Anglo-Saxon guilds right up to its present vast proportions, when the annual premiums in the United Kingdom reached from 10,000,000*l.* to 12,000,000*l.* He urged that all property destroyed by fire was a national loss, and demanded recognition as such by the Government. He said returns of all fires should be made annually to the Central Government, as they were in Russia; for such returns indicated more than appeared on their face,—they indicated alike political discontent or commercial depression. Such information was therefore conducive to good government. He went further and said there ought to be an official inquiry into every fire whereby life was endangered or property sacrified. In the absence of such inquiry, there was a sort of indirect encouragement to arson or incendiarism; and from this and other reasons combined the proportion of fires to the population appeared to be increasing.

applied to private dwellings. There can be no doubt that a picturesque pencil could convert the house-fronts of Drury-lane or Bedfordbury into things of beauty, than which the Jews' Quarter at Frankfort, or the gables of Lisieux, would not be more quaint or delightful; and to judge from much that is passing around us, a certain section of a school, if it can only transform the streets into the appearance of "Chepe" or "Old Bourne," as scene-painters are now pleased to depict them, is not unwilling to sacrifice science to art in the economy of house-building. But a wise architect first determines the internal distribution of his work; and he does not think of superficial adornment until the nature of the construction, and the materials of which it is to be composed, are known. "Ornamental Architecture at Botany Bay"! cried Sydney Smith, "How it could enter into the head of any human being to think of pillars and pilasters when half the colony are wet through for want of any covering at all, I am utterly at a loss to conceive"! In like manner it may be urged that while the courts and alleys of St. Martin's-lane, the slums of Westminster and Soho, and a host of other plague spots, on and between the estates of great freeholders, remain in their actual condition, the common sense of London is derided with talk about the artistic value of "mellow" fronts and the æsthetic advantages of irregularity and confusion. A glance at a part of the population, even, in our immediate vicinity, suffices to show, on the one hand, aggravated debasement which shrinks from notice; on the other, "culture" which makes a great deal of noise. To aid the improvement of the town and the vast mass of its inhabitants, two schools are diligently at work: the teaching of one based upon the laws of science, that of the other upon the caprices of art. In a less learned and less artificial state of society, both in the best times of Antiquity and of the Middle Ages, these forces worked together; but that they are now arrayed against each other, and are daily becoming inimical to each other, it is difficult not to believe.

The cry, frequently reiterated, for the highest art at all times, and the purest respect for nature in all places, would, if granted, be attended with absolute refusal of many economical benefits which the science of engineering confers upon the country. To bridge the Tamar or the Menai Straits, to tunnel Dover Cliff, to span a valley in Derbyshire or Devon, is, with soft sensitive souls, who do not scruple, however, to pronounce their opinions in public, to deface the work of God. The sort of argument implied, if not employed, by them, in the matter of new thoroughfares, for instance, is broadly stated,—Because water in its flow round hillocks and over dales takes a winding course; because old highways and streets, from the claims of property as well as the fluctuations of soil, twist and turn about; therefore a new street or an artificial water-passage should follow the curve of beauty and grace, rather than a direct line from one locality to another. Although in prosaic minds cleanliness and godliness are allied, the school of the picturesque courts anything, even soot, which will take from a new building the damning evidence of its youth. A newly-painted window is said to be crude and garish until a coating of dirt has blended its many colours. A glazed or vitrified surface for the outside of a town-house, in fact anything that will wash, is denounced as inartistic. But much as it must undoubtedly shock poets and painters, the world is getting, year by year, to believe in the force of utility and to fear the results of sentiment. It is worse than idle to censure the ugliness of engineering innovations; for, like the "births of Time," they are necessarily "ill-shapen." When Southey, on this same subject, talked about the "unqualified deformity" of labourers' cottages, and of everything connected with manufactures, Macaulay answered,—"Here is wisdom . . . . . rose-bushes and poor-rates, instead of steam engines and independence! . . . . . Does Mr. Southey think that the body of the English peasantry live, or ever lived, in substantial ornamented cottages with box hedges, flower-gardens, bee-hives, and orchards?" The engineers, within the memory of living men, discovered the lost Greek track,—a track well worn in the Middle Ages,—and though they have not scrupulously kept to it, ugly railway stations, ugly viaducts, and utilitarian edifices of all kinds, may yet grow into a beautiful style of the twentieth century. But the votaries of scenic architecture lay by nothing for the future; they only provide the present with revivals of the past. Surely to construct the picturesque, or to buy it ready-made, is a little theatrical,—an attempt to forestall Nature and to out-run Time. At least it perplexes the thinking portion of the English people; the majority of whom, though doubtless weary of the stock compliment of their neighbours, are unwilling to repudiate the Socratic doctrine, by which they have achieved political and commercial success, to embrace a newer persuasion of sentiment. WILLIAM H. WHITE.

GOLD AND SILVER IN KING SOLOMON'S TIME.

SIR,—Mr. Ewan Christian's note (p. 205) opens up a very interesting subject of inquiry as to the relative value of gold and silver in ancient times, on which a great deal might be said for which the *Builder* might not be disposed to find room. The more immediate question is as to the interpretation of a particular text (1 Kings x. 21). I suppose nine out of every ten persons would make no difficulty at all as to the meaning in our authorised version, and at once say that it was *silver* which was nothing accounted of in the days of King Solomon. When we refer to the Hebrew text, however, there is a certain amount of ambiguity which affords some slight ground for doubt. It stands thus:—

וְכֹל כְּלֵי בֵּית יַעַר הַלְּבָנוֹן סָגוּר אֵין כֶּסֶף לֹא נֶחְשָׁב בִּימֵי שְׁלֹמֹה

Vecol celei beith. . . . . záhábh ságur; ein ceseph, lo nechsháb bimei Shelomoh.

"And all vessels of the house (of the forest of Lebanon) *were* pure gold, none silver, *it* was not valued in the days of Solomon." The words *were* and *it* are not in the text. The verb *nechsháb*, from the root *cháshabh*, to calculate, to account, is in the masculine form of the third person singular, of the past tense, in the Niphal or passive conjugation. This might have afforded some clue as to whether it was gold or silver that was so lightly esteemed; but, unfortunately, *záhábh*, gold, and *ceseph*, silver, are both masculine, so that the verb may apply to either.

The personal pronouns are usually omitted before the verb in Hebrew. If the verb applied to silver it is strange that the relative pronoun *asher*, so freely used in Hebrew for *which* and *that*, should not have been inserted. If we look again at the next verse, we see the reason for the light estimation of the precious metals. "For the king had at sea a navy of Tharshish with the navy of Hiram; once in three years came the navy of Tharshish, bringing gold, and silver, ivory, and apes and peacocks." This is the reason given for the plethora, and it applies to gold quite as much as to silver. I should rather be inclined to treat the verb *nechsháb* as an impersonal expression, applying to both metals, really signifying "this was of no consequence in the days of Solomon."

The passage in the Septuagint runs as follows:—

"Καὶ πάντα τὰ σκεύη οἴκου χρύσιῳ συγκεκλεισμένα, οὐκ ἦν ἀργύριον, ὅτι οὐκ ἦν λογιζόμενον ἐν ταῖς ἡμέραις Σαλωμών."

The question here arises as to the meaning of λογιζόμενον. The ordinary meaning of λογίζομαι, is to count, to take into account, to consider. Liddell and Scott in the various illustrations they give, have none implying estimation or value.

The passage may be fairly translated,—"All the vessels of the house were overlaid with gold; they were not silver, for it was not reckoned in the days of Solomon."

The Vulgate version is as ambiguous as the Hebrew:—"*Universa supellex domus saltus Libani de auro purissimo; non erat argentum, nec alicujus pretii putabatur in diebus Salomonis.*"

Luther distinctly applies the depreciation to silver:—"Alle Gefässe im Hause vom Walde Libanon waren auch lauter Gold; denn des Silbers achtete man zu den Zeiten Salomos nichts."

Osterwald takes the same view:—"Toute la vaisselle de la maison du parc du Liban *était* d'or fin; il n'y *en* avait point d'argent; *l'argent* n'était point estimé pendant la vie de Salomon."

Diodati, in Italian, gives a corresponding translation.

The author of the article on *Keseph* (silver) in Kitto's Cyclopædia (Dr. Lindsay Alexander) seems to take the same view.

I have endeavoured to give a general solution to a somewhat ambiguous passage; with what success your readers must judge.

J. A. PICTON.

VALUE OF GOLD AND SILVER.

SIR,—It must be more instructive than gratifying to the authors of such articles as that on the "Art Lessons from Mycenæ" to find with how extremely small a share of either critical learning, or common sense, they are credited by some of your readers,—if it be proper to use the plural. To criticise the statement of a writer who must, at all events, have given some thought to his work, on the ground of the punctuation of one out of many translations and versions of an ancient book, which was written not only without stops, but without division of words, is certainly bold enough. Whether the sequence of colon and semicolon could, in any case, have the grammatical effect attributed to it by Mr. Ewan Christian, in your last number, I need not stop to inquire. In the present instance, such a perversion of the obvious meaning would be impossible to any one who had studied either the Vulgate, the Latin version of Jager, the Septuagint Greek version, or the original. Saint Jerome says,—"Sed et omnia vasa quibus potabat rex Salomon erant aurea: et universa supellex domus saltus Libani de auro purissimo: non erat argentum, nec alicujus pretii putabatur in diebus Salomonis." I need not put your printer to the trouble of setting up either the Greek or the Hebrew type; but add the words of the translation of the former by Jager, in the fine di-glott Paris edition of 1839, which closely follows the language of the Greek, and the sense of the Hebrew. "Et omnia vasa quæ a Salomon facta aurea, et luteres aurei, et omnia vasa domus sylvæ Libani auro conclusa. Non fuit argentum, quoniam non fuit reputatum in diebus Salomon." Apart from the plain grammatical sense of the words, it is contrary to common sense to imagine that the services of the sanctuary and of the palace were made of gold because gold was held in light esteem.

The question of the historic relation existing between gold and silver does not hinge on the misplacing of a colon, or the misunderstanding of a plain text. A considerable amount of information exists on the subject, as may be seen by reference to the article on "Value," in vol. iii. of Cassell's "Bible Educator," where the passage in question is cited. TECTON.

THE HOUSEHOLD AT DIFFERENT ERAS.

SIR,—Since you were good enough to invite the co-operation of your readers in the technical inquiry which you introduced a week or so ago, with a description of the Grecian house, I shall be obliged if you will let me note a few instances of exaggeration, and almost laughable description, which are offered, under the guise of learned research, to the non-Classical public with the pretence of popularising the ancients. As you have intimated, Becker's "Charicles" is the best, and I think the first, book of the kind which treats satisfactorily of a question that, with all his diligence, however, the German scholar has not been able to settle. The translation might certainly have been better done; and, indeed, in the English version of "Gallus," antiquarian details are given in a style of heroics which no catering for public pence can excuse. Such sentences as "the deep blue of an Italian heaven," — implying almost a hereafter of nationalities,—are counter-balanced by a reference to the Roman cooking apparatus in the following manner:—

"Near the familiar flame they took the common meal."

This, of course, is not Becker, but his translator,—the Rev. Frederick Metcalfe, M.A.; and, indeed, the former ought to have sympathetic rather than rough treatment from antiquaries, seeing that more than one book-maker has used Becker's vast collection of facts with but rare acknowledgment, and sometimes even without mention of his name. The authors of a book called "The Life of the Greeks and Romans" have sinned in this way; and though I at least am not dissatisfied with them for putting many of his facts together in a readable form, I am quite perplexed with the serious announcement made by Messrs. Guhl and Koner that a real Grecian dwelling-house has been discovered in the island of Delos. One of their proofs that the said building is undoubtedly ancient consists in the fact that it resembles nothing which is

known, or is supposed, to have formed a house such as those, even, which Demosthenes condemned. A plan is given of this building at page 83 of their book, together with a view of the "beautiful vestibule" which Vitruvius says was not used by the Greeks, but which Messrs. Guhl and Koner declare "consists of two Ionic columns between two graceful antæ." Of course, being tickled, I followed your example and scaled their plan. I found that, by allowing 3 ft. clear (very little, all must admit) between the bases of the columns forming the central opening, I obtained an area of construction measuring 140 ft. by 70 ft. This entrance portico,—almost big enough to be the inner portico of a minor temple, such as that of Nemesis at Rhamnus,—is described as leading to a "narrow passage," which, by the bye, is as broad as the portico itself. This narrow passage leads into what Messrs. Guhl and Koner call an "*aula*," and this *aula* is 30 ft. long by 5 ft. wide. The authors, or, perhaps, the translator, ought to say what is meant by the term *aula*, especially as surprise is expressed that a place 5 ft. wide should be devoid of columns. Now, αὐλη means a court, hall, or peristyle.

Moreover, the authors of "The Life of the Greeks and Romans" have constructed a plan of the early Grecian house from the description given of it by Vitruvius. They suppose it to have been composed of one peristyle; and without counting the space allotted to the garden, they have managed to cover a superficies of 130 ft. by 90 ft. Their *thalamus* reaches the colossal dimensions of 30 ft. by 20 ft. Permit me to add that the Grecian house of Marini, who is one of the best commentators of Vitruvius, is down in black and white; and by allowing your width of 5 ft. for the entrance passage the whole building covers an area of about 140 ft. by 113 ft.

These dry figures aside, let me say a few words about the "Ancient Classics for English readers" which so many journals have eulogised. I admit that some, such as the essays on Cicero, Cæsar, Herodotus, Xenophon, and that on Horace by Mr. Theodore Martin, are useful as well as entertaining. But I protest emphatically against the "Aristophanes" of the Rev. Lucas Collins, M.A., and the "Æschylus" of Mr. Reginald S. Copleston, M.A.; and happily, though both are written in the same strain, they contradict each other. I have yet to learn that the comedies of Aristophanes were played in an amphitheatre; yet Mr. Collins solemnly assures us that "the masses who filled that vast amphitheatre formed a literary 'public' the like of which was never seen before or since." Then he goes on to explain that the "constant attendance" of the Athenians at the theatre was a cause of their intellectual pre-eminence; having previously told us that the great festivals of Bacchus, on which the theatrical entertainments took place, were held three (*sic*) times a year. He moreover adds that Aristophanes pandered to the tastes of this same "literary public" and "degraded his muse to the level of the streets." He might have said, had he known it, that in order to make this "literary public" applaud the poets threw nuts and figs among the audience. But Mr. Copleston, though his essay on "Æschylus" was published two years before that on "Aristophanes" by Mr. Collins, shall be brought to the rescue of his chief. He does not talk about a vast amphitheatre—not he; he talks of a theatre, and in the rich, copious diction of an Oxford Fellow and Lecturer. Ye gods! support me lest I misquote:—"It was a point of national pride . . . . not to miss the two [*sic*] great dramatic festivals of the year. . . . . The theatre was open to the sky and to the fields, so that when a man looked away from the solemn, half-mysterious representation of the legendary glories of his country, his eye would fall on the city itself with its temples and its harbours, or on the rocky cliffs of Salamis and the islands of the Ægean." This, it will be admitted, was a comprehensive programme to embrace with a couple of eyes; but they were antique ones, and there was then no railway between the harbour of the Piræus and the city; nor did any steamers ply between that port and the Grecian Archipelago. Nevertheless, I doubt if even the eye of Socrates saw through a solid stone wall, and the bodies seated one over another of thousands of spectators. But to our collegiate mentors again:—"Religion to a Greek consisted in an intense love of all that is beautiful. . . . . Bacchus was not, as he is to us, a statue, or a picture, or a name, but a real merry boy with a crown of ivy-leaves and *a strange power of inspiring wild thoughts in the human breast.*" Then:—"All are tending, early in the day, to the great theatre of Bacchus under the Acropolis. . . . . The vast semicircle is filled already with men and women. . . . . The sun shines full in the faces of the expectant multitude. . . . . At length the curtain is removed, and the scene in which the action is laid is disclosed. . . . . All is executed with . . . . a knowledge of perspective such as even modern scene-painters hardly perhaps surpass. . . . . There is not much acting, ... rather a series of tableaux, majestic, colossal, statuesque."

Now, sir, this sort of thing, offered up as a prayer to the gods or an invocation to the Muses, would be exceedingly pretty, and deserve the applause of even sober-minded scholars; but thrust for twenty-six pence into the hands of Demus, even Demus after his purification by the School Board,—it is almost ten to one that the talented essayists will suffer. The sacred majesty of the people objects to being humbugged. Seriously, antiquity is quite grand enough to dispense with the kind of hyperbole which may suit the morning paper, but will not bear reading leisurely in a book. The city-Dionysia at Athens was, in Becker's words, a scene of unbridled merriment and drunkenness. Troops of the *demi-monde* were brought upon speculation from Corinth; and the dregs of the town assisted in the festival. It was the Greek carnival. No married women or their daughters attended the theatre. That building, after the Greeks had seen the tent of Xerxes, was covered by an awning. No one seated in the theatre of Bacchus could see even the tops of the trees in the island of Ægina; I doubt if he could see even the pediment of the Parthenon. The theatre was faced and almost environed by higgledy-piggledy streets and houses, not fields. I doubt if Demus in the time of Æschylus was much better than Demus in an Indian city, like Lucknow or Hyderabad, before the British domination; and since you have sought in Hindostan an illustration of your opinions about early dwellings, I venture to say that the modern Hindoo and the ancient Greek have many similar customs. But to continue, neither comedies nor tragedies were played in an amphitheatre, nor was there ever such a building on the slope of the Acropolis. The Greeks were not lovers of Nature, nor did they appreciate it; that sentiment was reserved for other and less developed races of men—those of Northern Europe. I think dramatic representations in Athens took place once annually, and lasted for several days; for the ancients did not live quickly, but they took their pleasures in a heap. Anyhow, if I am wrong, I shall be very glad to eat humble pie; but Mr. Lucas Collins must descend from the clouds in which Aristophanes left him, to talk—and some of his assistants would do well to take the hint—about the Greeks, in the language of men, not of gods.

A STUDENT OF ANTIQUITY.

"A POSSIBLE CAUSE OF DANGER."

SIR,—As the *Builder* is an engineer as well as an architect, I am unwilling that his columns should be made the channel for opinions which are not based on the best engineering science. Allow me, therefore, to say a few words on Mr. Charles Hill's suggestion of danger. The earliest locomotives employed on the Liverpool and Manchester and London and Birmingham railways were driven by a pair of wheels on a cranked axle, the engines being four-wheeled. The introduction of six-wheeled engines, with the driving-wheels in the middle, without flanges, was an improvement on the four-wheeled type. Almost every possible form of combination of wheels has since been effected; and the last improvement, in the opinion of the locomotive engineer of one of our most important and best-worked lines, is the general use of six-wheeled engines, with all the wheels coupled, the diameters being 6 ft. for the lighter gradients and 5 ft. for the northern, and more severely inclined, portions of the line. The destructive action of the locomotive, whether on the permanent way or on its own structure, is greatly reduced by making the entire weight of the engine useful for giving adhesion to the rails.

With regard to the revolution of one wheel, after the engine had been subjected to violence enough to break the coupling-rods, out of exact accordance with another, nothing can be more easily accounted for. If it were the indication of such danger as your correspondent supposes, the keying of a pair of wheels on one axle would be much more objectionable. In going round curves there is a very considerable strain thrown on every axle in a train. The conical shape of the wheels was adopted in order to diminish this strain, by allowing each pair of wheels to find, as far as possible, the plane of minimum strain, by throwing the carriage nearer to the outer than to the inner part of the curve. If the wheels were not keyed on the same axle, the wheel on the inner rail of a curve would always revolve at a different velocity to the corresponding wheel on the outer rail. There is a definite and ascertainable loss of power attributable to the rigidity of a pair of wheels, and this loss of power has been purposely submitted to for the sake of additional safety obtained by the rigidity in question.

In the same way, if two wheels of exactly the same diameter, follow one another, a very slight deviation from the line of direction is enough, if the wheels are in any way conical, to make one gain or lose on the other. Any arrangement which made the one follow the other with mathematical precision would make the revolutions coincide. If one of these wheels were driven, as a means of propulsion, and the other simply ran, as bearing a portion of weight, any slip of the former on the rails, such as will always occur when the adhesion is in any way over-taxed, will throw the revolutions out of unison. But if the wheels are coupled, as is now increasingly the practice in the best engines, slip, with all its grinding and destructive effect, is in all probability absolutely prevented. When a pair of wheels gives the entire adhesion, it is easy to slip. If four wheels are coupled, slip is far less likely to occur. With six wheels coupled slip is almost entirely out of the question. There is a certain strain thrown on all the wheels of the engine at the same moment, by coupling,—a strain which, as far as possible, is equal throughout. By this means not only is the mechanical power of the engine better employed, by making it hold to the ground with the adhesion due to its entire weight, instead of to a part of it; but the vibrations and oscillations which are perceptible when a single pair of driving-wheels is employed are reduced to a minimum, and the engine is made at once more effective and more safe.

There is quite enough blindness shown with reference to the main cause of collision on railways, namely, the interference of two streams of traffic flowing at very different rates of speed, to render it important not to divert the attention of travellers and others, who are not mechanical men, from the subject, by representing mechanical improvements, which conduce greatly to punctuality, as well as, in other ways, to safety, as "possible sources of danger." ENGINEER.

Fires and Fire Insurance.—At a meeting of the Statistical Society on the 19th ult., Mr. Cornelius Walford read a paper on "Fires and Fire Insurance, considered in their National Aspects." He reviewed the various measures which had been taken, from the period of the Roman occupation of Great Britain down to the present time, in the matter of fire protection, and said those steps clearly showed that protection was merely a municipal duty, and had always been so regarded until fire insurance offices came upon the scene, in the year following the Great Fire of London (1666); since which period the municipal authorities had become more and more backward in their duty in this regard, and the fire offices from sheer necessity had come to the front and provided the protection of fire brigades, &c. Matters were now getting back into their proper shape. He traced the progress of fire insurance from its early indications in the Anglo-Saxon guilds right up to its present vast proportions, when the annual premiums in the United Kingdom reached from 10,000,000*l.* to 12,000,000*l.* He urged that all property destroyed by fire was a national loss, and demanded recognition as such by the Government. He said returns of all fires should be made annually to the Central Government, as they were in Russia; for such returns indicated more than appeared on their face,—they indicated alike political discontent or commercial depression. Such information was therefore conducive to good government. He went further and said there ought to be an official inquiry into every fire whereby life was endangered or property sacrified. In the absence of such inquiry, there was a sort of indirect encouragement to arson or incendiarism; and from this and other reasons combined the proportion of fires to the population appeared to be increasing.

THE RISING SCULPTORS AND CARVERS.

"SIR, — The promoters of the Tufton-street Architectural Museum are certainly to be commended for the good intentions they have in view,—namely, the welfare of the art-worker and the better taste to be displayed in the detail of works which the architect may require to be introduced into his buildings. Allowing it to be a fact that the carver has vastly improved in his capacity as designer, it is only right that we should expect him to derive some benefit financially, which is seldom the case at present, where he is employed by a man of less knowledge than himself, whose only object is to make as large a profit as possible. If I am to certify my experience, I can verify the fact that many of these men are far more intelligent than their employers. If the promoters of the institution in question were to reverse their plan, by educating the masters first, I believe the result would be far more satisfactory, not only to architects themselves, but also to the art-workmen. At present the men who employ carvers to any extent no sooner become conscious of their position than they too often resort to that mode of life which must reduce art to the lowest grade.

To illustrate the amount of ignorance with regard to art among masters of this kind, I may be pardoned if I insert here a conversation which I had with one of them some years ago. I was discussing with my versatile friend the merits and demerits of a figure which was in clay; the group of Antique Boxers was placed close by, probably for reference; he turned to the group and pointed to that part of the leg which is covered by the muscle called the *Vastus externus;* "Let me see," he said, "what is the name of this muscle? In fact, I forget all my anatomy," as if he ever knew anything of that science! I purposely and erroneously gave the name of the *Gluteus maximus.* "Judas what? Maximus. Oh, yes." Turning round to the figures he began to talk about the "*scapula* of the leg," which he thought was not quite right. What the *scapula* of the leg is, or what he meant it for, I do not know.

I am sorry to say architects who stand in the highest position with regard to their profession, and even those who are members of the Royal Academy of Arts, prefer to patronise such men as this rather than give their figurework to those aspiring young students who are struggling for a modest existence. Instead of allowing their students to be drifted away by the tide of misfortune after they have completed their studies, and probably taken some of the highest honours in the school at Burlington House, would it not be well if that honourable body who choose to provide means for our art education were to make also some slight provision for our future success? Let me ask, Sir, what would it cost the President and members of the Royal Academy to solicit those architects who belong to their body to confer a boon upon those students, at least, who have been successful within their own institution? I am confident it need not cost them a penny, and I believe the plan would work well; it would be such as could not fail to ameliorate the present condition of architectural art alone, but the social position of our young sculptors, from whom as a body of men we are to expect a higher class of work than that which adorns our public and private buildings; and we may also expect that the Royal Academy in future may have to choose some of their members from among them. As an old student of the above institution, I can fully appreciate the benefits it bestows upon us. But whatever those benefits may be, they are only of short duration; our future welfare does not depend upon them, and the renown which some of us may have gained within the walls of the Royal Academy does not in any way extend to the art-patronising world in general. What, then, remains to be done,—when architects do not choose to give their work to those who are capable of appreciating their art, and are fully qualified for its execution, but will rather see these hard-worked students spend the best part of their life under the tyrannical rule of such men as talk about the "*scapula* of the leg"? As to the Architectural Museum, it is not very probable that after years of study in higher schools, and under the best possible masters the country can produce, I can appreciate the humble and one-sided mode of art training at the Architectural Museum. I have spoken to some of my fellow students with regard to my views, and they fully concur with my opinions, that if architects do not choose to patronise genuine art, but will rather uphold the manufacturing quack in preference to the true artist, they will, I fear, have to support themselves the institution they now seek aid for. J. M. G.

BUILDERS' CLERKS' BENEVOLENT INSTITUTION.

THE tenth annual general meeting of this Institution was held on the 27th ult., at the offices, 27, Farringdon-street, E.C., Mr. Edwin Lawrence (of the firm of Wm. Lawrence & Sons), president, in the chair. There were also present Mr. B. Colls, the retiring president; Messrs. Thomas Stirling, W. Hewett, H. T. Bayes (treasurer), E. Graystone, E. Brooks, A. R. Smith, &c. The report showed a total income for the past year of 261*l.* 8s. 4d., being a slight decrease from that of the previous year, but happily counterbalanced by a corresponding decrease in the working expenses. One of the pensioners, Mrs. Eaton, having remarried, her name has been removed from the pension list, leaving eight pensioners, all widows, still on the funds.

During the year the orphan rules had been finally arranged and certified by the Registrar, and in accordance therewith a presentation for twenty-one years to the Orphan Working School had been purchased in the name of the trustees, and a child of one of the pensioners, Alice Grace Spencer, was proposed as a recipient of this benefit, and was afterwards duly elected.

The Chairman, in moving the adoption of the report, said he was very glad to be present at that meeting, as he felt he was associating with those who had worked hard to promote the welfare of the Institution. With regard to the orphan rules, he believed those concerned had had some difficulty with them, but it must not be lost sight of that Government officials had certain duties to perform, and it was only that which they felt they could accept (as in this instance) that could be agreed to. The Institution was only young at present, a period of ten years was not long to have been established, and they must be content to work gradually up, like a building, which was taken up by degrees from the ground, and he hoped that in the case of this Society the foundations were stongly and firmly laid. With regard to the clerks themselves, many of whom he had the pleasure of meeting that night, he could only say the master builders were very largely dependent on the clerks. In the matter of estimating, for instance, how much they often had to rely on the help obtained from their services, and there was little doubt that the clerks took a great deal of interest in the work entrusted to them. He felt sure that it was only necessary for the Institution to become better known for its prosperity and usefulness to be much increased.

Mr. Stirling, in proposing a vote of thanks to the retiring officers, referred especially to Mr. Colls, the ex-president, saying the Institution was much indebted to him for the active interest he had taken in its detail work, feeling sure that his connexion with the Society was calculated to result in much good.

Mr. A. R. Smith seconded the resolution.

Mr. Colls, in replying, said that a vote of thanks was hardly his due; he felt he had done but very little. The foundations of the Institution, which the new president had referred to, were already laid, and he had only put, as it were, another brick into the building. He especially referred to Mr. Bayes, who had shown so much interest in the work of the Society, more particularly in the business relating to the orphan fund.

The following donations were announced:—

	Donation.	Annual Subs.
Mr. Edwin Lawrence, president	£10 10	
Messrs. Ashby Bros.	5 5	
Mr. C. W. Jackson	5 5	£1 1
Mr. W. Hewitt	5 5	2 2
Messrs. W. H. Miller & Sons	—	1 1

A vote of thanks to the Chairman closed the proceedings.

LIVERPOOL ENGINEERING SOCIETY.

ON the 28th of February, this Society held its thirty-third meeting at the Royal Institution, Colquitt-street, Mr. C. Graham Smith, president, in the chair. A paper was read on the "Sluices at the New North Dock Works Canada Basin," by G. A. Lyster, member. The author described the works in question, and their construction so far as completed; and then showed that their design and general arrangement are in accordance with the experience derived from the Birkenhead Low-water Basin and other sluicing arrangements throughout the Mersey Dock Estate. The subject is one of great importance to engineers, as the keeping of docks and harbours from silting up generally forms a large item in the annual maintenance account. An animated discussion followed, and the author was accorded a vote of thanks.

Public Buildings in the Metropolis.—In the House of Commons Mr. Bailie Cochrane has given notice that on an early day after Easter he will move for a Select Committee to inquire into the annual expenditure of public offices and buildings in the metropolis, with a view of seeing whether some plan cannot be hit upon by which it would be more economic and satisfactory.

PUBLIC WORKS AND BUILDINGS.

THE CIVIL SERVICE ESTIMATES.

IN Committee of Supply, on the 26th ult., on the proposal to vote 4,200*l.* for furniture for public offices, the Chancellor of the Exchequer, replying to Mr. James, who had questioned the propriety of expenditure in altering buildings which were practically condemned, said that these buildings in Downing-street were in the position of threatened men who were said to live long. He was told there were many people ready to take them on long leases, and he thought they were not likely soon to be destroyed. The vote was agreed to.

On 3,440*l.* for the Houses of Parliament, Mr. Adam remarked that full explanations ought to be given as to why there was such an increase in the expenses incurred in the ordinary maintenance and repair of the Houses, and as to the special works, the necessity for which was, according to the papers before the House, not apparent when the original estimates were framed.

Mr. Noel gave details of expenses incurred in maintenance and repair of the prison-room, the ladies' gallery, the division-bells, the Victoria Tower, the repair of the pinnacles of which, after the squall in January, cost 350*l.*, the Serjeant-at-Arms' house, and rooms for the members of the Government.

Sir G. Bowyer complained that, notwithstanding the newspaper paragraphs which appeared every February, announcing extensive embellishments and improvements in the Houses of Parliament, nothing was ever seen by members which would account for the expenditure, which he believed was greater than need be incurred.

Lord F. Cavendish could not see that these expenses were so urgent as to demand supplementary estimates. The repair of the prison-room, which had not been occupied since 1848, might well have been delayed.

The vote was agreed to, as was that for 3,524*l.* for the erection of new offices in Downing-street, in connexion with the Home and Colonial Offices.

Upon the vote of 1,490*l.* for the National Gallery, in reply to Mr. Goldsmid, Mr. G. Noel said that it was not the intention of the Government to enlarge the building; the most ample precautions were taken against fire. The vote was agreed to.

Upon the vote of 1,800*l.* for repairs to harbours, Sir C. Adderley regretted to state that the estimate of 1,200*l.* for Dover Harbour was only a temporary estimate. Sir John Hawkshaw had inspected the damage to the harbour, and had said it was utterly impossible to form an estimate of the ultimate cost of the repairs. The vote was agreed to.

Upon the vote of 40,975*l.* for the purchase of a site for the erection of a building and other purposes for the new courts of justice, Mr. G. Noel informed Mr. Adam that the works were progressing very favourably. He had been over them with Mr. Street, the architect, whose opinion of the progress was very favourable. One portion would be completed at the end of the year. After some discussion the vote was agreed to.

Upon the vote of 69,400*l.* for public office sites, Mr. Mundella called attention to the purchase by the Government of the offices at Canada-buildings, King-street, which he remarked were most inconvenient and ill-fitted for the purpose to which they were to be put. After further discussion the vote was carried, on a division, by 96 to 61.

On the estimate, 47,000*l.*, for the purchase of Winchester House, Sir W. Fraser hoped the Committee would consider before sanctioning the continuance of the War Office in such buildings as the present. He believed the foundations of that office to be the cause of sickness, misery, and in some cases death.

Mr. Noel said that when the report of the Committee was laid on the table, his hon. and gallant friend would see what was the sanitary state of the buildings. Even if a new War Office were erected, a considerable time must elapse before it could be occupied, and in the meantime by the proposed purchase of Winchester House a great saving would be effected by the concentration of some outlying departments.

Mr. Childers opposed the vote, and said that when Winchester House was put up to auction the highest bid was far below 47,000*l.* The offices must be extended either in the direction of Great George-street or Pall-mall, but the Government must make up their minds which

it was to be, or they would land themselves in great extravagance. He would suggest the appointment of a small commission to settle the matter.

Mr. Mundella said it would cost several thousands of pounds to fit up Winchester House, and it was a mistake therefore, to buy these outlying buildings instead of at once erecting a new War Office.

Sir G. Balfour supported this view.

After some further discussion the vote was agreed to.

ARTISANS' DWELLINGS COMPANY: RISKY TACTICS.

On Saturday, the tenth ordinary general meeting of the Artisans', Labourers', and General Dwellings Company was held at the Westminster Palace Hotel. Dr. Baxter Langley presided. The revenue account showed that the rentals of the company's property had brought in 19,853*l.*, and that there has been a profit of 2,130*l.* on land actually sold, and 1,680*l.* as interest on repayments. These taken with capitalised profits from ground-rents, &c., amount to 8,709*l.*, after certain deductions had been made. The directors recommend that a dividend of 6 per cent. per annum be declared, and 2,451*l.* be carried to the reserve-fund.

Mr. Dudley Fortescue complained of not having received a notice of the meeting, which was echoed by Mr. Evelyn Ashley, M.P., and Earl Fortescue. Mr. Swindlehurst assured the gentlemen that the fault must be in the Post-office.

A shareholder asked how the company could pay so high a dividend when they had so large an amount of unremunerative capital invested.

Mr. Greening explained that the company had a large amount of property upon which would shortly be realised large profits. There were also the ground-rents. The company had a right to draw upon such property, and as a matter of good policy it was wise to keep the dividend at 6 per cent. so that they might induce capitalists to come and help them to complete their undertakings.

Mr. J. Pearce said he had gone thoroughly into the accounts, and could show that the earnings of the company did not warrant a dividend of 6 per cent.; he felt bound to tender his resignation as one of the auditors of the company.

Amendments suggesting 5 per cent. dividend, and no dividend, were severally proposed and rejected. The report was then adopted, and 600*l.* were voted to the directors.

MASTERS AND MEN.

Greenock.—In the action raised lately in the Greenock Sheriff Court by Messrs. John Coghill & Son, contractors, Smithston, against Michael Storen, one of the American masons, praying his Lordship to ordain the respondent to return to his work under a penalty of 50*l.*, Sheriff Fraser has just issued an interloontor, in which he dismisses the appeal from the decision of Sheriff-Substitute Smith, and finds no expense due to either party, on the ground that there was slovenliness on the part of the New York agent in drawing up the terms of the advertisement, and stupidity on the part of the respondent in signing a contract the contents of which he had not previously made himself acquainted with. This decision will affect the contract relations existing between Messrs. Coghill and the rest of the American workmen employed at the new Poorhouse and Asylum at Smithston.

Durham.—The Durham joiners still adhere to their determination to suffer no reduction in their wages to be made. The employers, on their part, assert that the strike is now at an end, as many fresh hands have started in the town at the reduced rates, and that the shops of all the masters are fairly supplied with men.

Aberdeen.—The Aberdeen sawmillers have petitioned their employers for an advance of 3*s.* per week on their wages.

Bromsgrove.—The nailmakers of Bromsgrove are still on strike against the 10 per cent. reduction offered by the masters. A large majority of the men have already commenced to feel the effects of the strike. The union has resolved to make a grant of 10*s.* to each man who is a full member, and 5*s.* each to the branch members. This will cost the union from 250*l.* to 300*l.*

Swansea.—Mr. Dyer, of Cardiff, district secretary of the Operative Stone Masons' Society, has visited Swansea with the view of settling, if possible, the unfortunate misunderstanding between the masters and the men, which has now existed since the first day of the present year. Interviews were had, both with the employers and men, with the object of ascertaining the views of both parties, and virtually the differences seemed to have been on the point of settlement. The principal point at issue was with regard to the acceptance of a new code of rules which the masters wished to enforce, the men contending that the legal six months' notice for the adoption of these rules had not been given. The *Cambrian* understands Mr. Dyer was with the men upon this point, but he suggested to the men that the new rules were so obviously to their own interest, as well as to those of the employers, that they should be at once adopted. The chief point of the new rules is the adoption of the hour system of payment instead of the day, with certain hours in summer and winter. The price per hour has also been arranged, viz., 7½*d.*, which will give the men more wages both in summer and winter than previously. At a subsequent meeting of the men, however, a resolution was carried almost unanimously, to the effect that the men were determined to adhere to the old code of rules, agreed to between the employers and themselves, through their representatives, in May, 1874, which, it was contended by the men, must be conceded before the strike could be said to be at an end.

Hiring in the Lock Trade.—At a meeting of the Stafford Local Trades Council on the 20th ult., a deputation who had waited on Mr. Staveley Hill, Q.C., and M.P. for West Staffordshire, in reference to the loan-hiring system in the lock trade, reported that the hon. and learned gentleman, while pointing out the difficulty of interfering with the freedom of contract between employer and employed, thought that the law might be so amended as to prevent the employer deriving a profit from the false position in which men who so hired out their labour placed themselves. He would consult Mr. Cross, the Home Secretary, upon the suggestion of the deputation that there should be introduced into the Employers and Workmen's Act a clause rendering such contracts irrecoverable as labour contracts at the police-court, and leaving the master to his ordinary remedy for debt in the county court. The Council determined to seek the aid of the Parliamentary Committee of the District Council in favour of such an amendment.

THE POWERS OF COURT LEET AND COURT BARON.

SIR DIGBY CAYLEY *v.* COATES.

In this case (Malton County Court, before F. A. Bedwell, judge) Sir Digby Cayley, bart., is lord of the manor over the defendant's property, and a jury of a court leet had found a drain belonging to the defendant in a bad state, and a "presentment" being made to the court leet to that effect, the delinquent was fined 3*l.* 10*s.* The defendant not only refused to pay the fine or set the drain to rights, but defied the lord of the manor, and his antiquated court leet and court baron, to compel him, and hence the application to the county court judge to enforce the authority of the inferior court.

Very voluminous evidence was given as to the constitution, mode of procedure, and duties of the court leet, from which it seemed that, on "the viewing" day, the jury divided themselves into sections, examined all the drains, then held a conclave, then went into the cases, and made their "presentment," and amerced defaulters. Sir Digby Cayley, bart., had been lord of the manor since 1849, and up to 1873, there had been no question as to the liability of cleaning out the drain in question, which was done by the landlord and charged to the tenant.

The Judge alluded to the great utility of the court leet, and said it would be well if these courts raked out the drains in populous places. They were the oldest courts in the realm. He had satisfied himself that the court was properly constituted according to the custom of the country, that the defendant himself had sworn fealty to it, and that its actions had been perfectly valid. He should, therefore, uphold the order made, and give a verdict for the plaintiff for 3*l.* 10*s.* fine, and allow costs on the highest scale.

Trees in London Thoroughfares.—As a contrast to the determination of the Newington Vestry to plant trees in the two principal roads, and also as to what has been already done in the Borough-road and other places, the Vestry of St. Marylebone has refused, by a majority of three to two, to accede to the prayer in a memorial of about twenty of the principal shopkeepers in the Edgware-road, to plant some opposite their houses, in a most eligible spot.

SURVEYORS' ACTIONS.

TILLMAN *v.* AYRE'S QUAY BOTTLE COMPANY.

The plaintiffs in this case, in the Nisi Prius Court (before Lord Justice Coleridge), were Messrs. John & Thomas Tillman, architects, Sunderland; and the defendants, the Ayre's Quay Bottle Company. Mr. Digby Seymour, Q.C., and Mr. McLyrmont, were for the plaintiffs; Mr. Herschell, Q.C., and Mr. Shield, for the defendants. The claim was for work done by the plaintiffs as architects. Mr. Digby Seymour, in stating the case, said that it was an action brought to recover from the defendants the sum of 122*l.* 2*s.* 1*d.* The original action was for 269*l.* 2*s.* 9*d.* 147*l.* had been paid into court.

Mr. John Tillman said that he was an architect, and had been in business about nineteen years. He was engaged by the defendants in October, 1874, to make a survey of the works near the Weymouth Bridge, for the purpose of an arbitration between them and the North-Eastern Railway Company. The first survey was a matter of great difficulty on account of the land, there being a descent of 90 ft. He had charged 30*l.* 13*s.* for that survey. He was next engaged to make a detailed survey, with plans and sections, of each building and dwelling-house at the works. He was told that this detailed survey was for a re-instatement. He took out the quantities and the prices were put in by Mr. Robert Hutchinson and others. These quantities were used by the defendants for the purpose of arbitration. He had charged 90*l.* for that work, which was on the lowest scale he had ever charged for quantities. It was at the rate of one per cent. on the total amount of the valuation, 8,900*l.* He was next employed to prepare a valuation of the bottle works and dwelling-houses connected with them. He charged 44*l.* 15*s.* upon his valuation, which was 21,763*l.* 12*s.* If he had charged at the scale adopted by the Northern Architects' Association, it would have been more,—he believed between 55*l.* and 60*l.*

In reply to Mr. Shield, plaintiff said that if the works had been re-constructed, the quantities would have been of immense value.

His Lordship.—It might turn out that a great deal of the work was useless, but if it was ordered to be done it must be paid for.

In reply to Mr. Shield, plaintiff said that the quantities were ordered either by Mr. Longden or Mr. Scott.

His Lordship said that, assuming reinstatement was at one time intended, the two items of 37*l.* and 89*l.* might have been most material.

Mr. Herschell said, with regard to the charge of 44*l.*, Mr. Tillman said that was upon his own valuation at 21,000*l.*

His Lordship thought it was not reasonable to put a per centage upon the plaintiff's own valuation. (?)

Ultimately, without hearing further evidence, a verdict for the plaintiffs for 73*l.* 2*s.* 1*d.* was taken by consent.

DAMAGE TO GOODS IN TRANSIT.

THE VIGO BRICK AND TILE WORKS *v.* THE GREAT NORTHERN RAILWAY COMPANY.

This was an action brought in the Bloomsbury County Court, on the 14th ult., by the plaintiffs, carrying on business in Northampton as the Vigo Brick and Tile Works, against the Great Northern Railway Company, to recover the sum of 49*l.* for damage done in transit to a driving-wheel, which had been ordered from the firm of Messrs. Tuxford & Sons, engineers, of Boston, and broken in transit. Mr. Hensman, instructed by Messrs. Scriven & Terry, appeared as counsel for the plaintiffs; and Mr. Harmsworth as standing counsel for the company.

The plaintiffs' counsel stated that on the arrival of the wheel at Northampton it was found to be broken in two pieces; upon which they at once communicated with the makers, and gave notice to the railway company, to intimate the damage done, and telling them that they would be held responsible.

The evidence of Mr. Mill, one of the partners of the plaintiffs' firm, went to corroborate the statement of the plaintiffs' counsel.

Mr. Harmsworth said that the contract, if one existed, was not with the plaintiffs, but with Messrs. Tuxford, of Boston, and in this case plaintiffs would not be the right parties to sue, therefore the company did not consider themselves liable; and even if so, the goods were sent at the owners' risk, at a reduced rate, and the learned counsel proceeded to call witnesses on behalf of the company to prove that there was no contributory negligence on their part.

Much evidence was taken on both sides, and the case was adjourned until the 26th ult., when judgment was given for the defendants, with costs.

TREATMENT OF TENDERERS.

Sir,—Will you kindly give me your opinion of the following in your next issue:—

An architect advertises for tenders for the erection of a house for Mr. Jones; tenders to be sent to the architect's office (properly endorsed), not later than ten o'clock on February 10th, the result being,—Herbert, 1,983*l.*; Wright, Bros., 1,800*l.*; Johnson, Bros., 1,754*l.* 12*s.* 9*d.*; Harding, 1,693*l.* Harding's tender being the lowest was accepted at once by Mr. Jones and his architect, and the thing apparently decided; but on Monday, the 12th of February, the architect received a tender (not endorsed) from Brooks, for 1,400*l.* The architect, opening the tender as an ordinary letter, feels bound to submit it to Jones, who, ignoring his acceptance of Harding's tender, instructs his architect to write to Harding, informing him he had accepted Brooks's tender on the 16th of February. Now, sir, will you kindly say if Harding has any chance of recovering compensation.

ONE OF THE CONTRACTORS.

*** We believe that Harding could recover compensation.

THE BIRMINGHAM ARCHITECTURAL ASSOCIATION.

AT the meeting held on Tuesday, February 20th, Mr. Yeoville Thomason, the president, in the chair, it was announced that the prizes offered by the Birmingham Architectural Society for the best measured drawings of "The Oaks," West Bromwich, had been awarded to the following:—

1st Prize, 5 guineas..... Mr. Thomas Turner.
2nd Prize, 3 guineas ..... Mr. Samuel H. Jones.
3rd Prize, 1 guinea..... Mr. Matthew Gardner.

A vote of thanks was also passed to the president for allowing the members to visit the works at the new Municipal Buildings on the previous Saturday. A paper was then read by Mr. J. W. Tonks, on the "Decoration of Interiors," which we print under its own heading.

THE HUMAN FORM: ITS STRUCTURE IN RELATION TO ITS CONTOUR.

IN the course of a lecture recently delivered on this subject by Professor Garrod, F.R.S., at the Royal Institution, some excellent drawings, made for the late Mr. Partridge, were exhibited, showing the positions into which the body has to be thrown to keep the line of the centre of gravity between the feet under different circumstances. In the well-known Greek statue of Mercury the whole weight of the body is on the toes of one foot, and while the head and shoulders are forward, one leg is back to maintain the balance. Professor Garrod alluded to the frequency with which artists err in the matter of the centre of gravity. He then passed on to the muscles of the body, and referred to the fact that up to 150 years ago people do not seem to have understood that the muscles which give motion to the bones are the flesh which is eaten. We even now do not understand the mechanism of the action of muscles. Every time they are in action there is a "using up," a "combustion" of material, and this has to be replaced. It is this that makes human labour so dear when compared with machine labour. Although in a steam-engine only one-third of the power of coal is utilised and the rest is wasted, yet food is so much dearer than coal that machine labour is much cheaper. Having explained the contractibility of muscle, and shown it as brought about by electricity, Professor Garrod went on to speak of the two sets of flexor and extensor muscles, which in action are opposed to each other. In seeking repose, those who regard the greatest amount of comfort attainable throw the body into gentle curves, which allow a relaxation of muscle. Physicians going round hospital wards at night notice nearly all the patients on the side and doubled up. The beauty of the contour of the human body is to a great extent caused by the muscles ending as tendons, thus from the thick part of a muscle to the thin tendon producing curves. This is markedly the case in the calf of the leg, and Professor Garrod humorously alluded to the pride with which a Belgravian footman regards the possession of a thick muscle there, which passes by graceful lines into tendon. The action of a large proportion of the muscles is on the principle of a lever of the first order; the muscles of the calf running to the foot act on the principle of a lever of the second order, while the arm affords an illustration of the third order. When a muscle is put into action it shortens, and in shortening thickens, as can readily be felt in the biceps. This fact of the thickening is important in art, as, by representing a thickened muscle, the idea of motion is given without there being any actual motion. A great fault with all artists who have studied anatomy is to overdo the expression of muscles. The Farnese Hercules, although very beautiful, is quite untrue to modern nature, and it is doubtful if such a set of muscles ever really existed. The Greeks knew nothing of the contraction of muscles in action, and in their statues there is represented only that which can be seen, Professor Garrod expressed his opinion that it was better for artists not to study anatomy or, if they do, to carefully observe and introduce in their work only what really does exist, than to put in what they know theoretically ought to be there.

Architects' Benevolent Society. — The annual general meeting of this Society will be held at 9, Conduit-street, on Wednesday, the 14th instant.

FAULTY FOUNDATIONS.

SINKING OF A GAS-HOLDER TANK.

IN the latter part of the year 1875, operations were commenced at Middlesbrough for the erection of the largest gas-holder tank in the North of England, at a cost of somewhere about 30,000*l*. The site chosen was the Marshes, but in close proximity to several streets and extensive ironworks. It was decided to build a wall round the tank of concrete (gravel and cement), 6 ft. wide, and this wall has been carried up to a great height, and was considered to be proceeding all right, when all at once one side gave way, and nearly one-half of a street sank down into the trench that had been excavated for the tank. Fears are entertained for the cottages on the opposite side of the street, several having shown signs of giving way, and the street now presents an ugly appearance, the damage being estimated at 6,000*l*.

It is believed that the foundations are faulty, and doubts are expressed as to the proper construction of the wall. At the time the site for the construction of this immense tank was proposed, it was foretold in the Middlesbrough Town Council that some calamity might be expected; and it is a most fortunate circumstance that the tank was not completed on so treacherous a foundation.

POLE SCAFFOLD *versus* TIMBER-BUILT SCAFFOLD.

SIR,—For scaffolds of any height, I am satisfied poles, in point of safety are to be preferred. Scaffold-poles combine lightness with strength, and whether vertically, diagonally, or horizontally placed, no angles are exposed for the wind to grip. Such would not be the case with the structure described,—the square timbers presenting a tremendous advantage to a strong gale.

In the erection of a pole scaffold the materials are usually selected so that the heaviest and stoutest are used below, and the lighter ones towards the top: but a timber scaffold would be, I should think, what we call "top heavy."

Three years ago I built two octagonal shafts in London, both over 100 ft. in height. In both instances I rigged the scaffold up, quite independent of the work, of course, and 130 ft. above the ground-line,—basing it 14 ft. below the ground-line. In one case the cast-iron cap weighed 5 tons, and was hoisted with perfect safety. A close-boarded inclosure was afterwards made for the gilders to work in, and although during the progress of the works there were some terrific gales, insomuch that all the scaffold-boards had to be lashed to the ledgers to secure them, not a single accident occurred. In the other case, so firm, yet elastic, was the scaffold that the architect and other gentlemen ascended to the top at least three times a week. Of course it was braced, but not extraordinarily so, and provision was made that none of the standards could by any possibility sink or start aside. A FOREMAN.

FLOATING BATHS.

SIR,—I have read the article in your issue of February 3rd, and also a letter on the same subject in a later impression. I should not trouble you, but I fear that both the author of the article and the writer of the letter are somewhat under a false impression as to what is likely to constitute a successful swimming-bath, viewed, at any rate, as it must be, as a commercial enterprise.

The water of most of the rivers in England, and I should think the Dee would form no exception, generally requires filtering to make it sufficiently attractive for that class who most largely practise swimming and bathing, and in a climate like that of England the water requires warming, except, perhaps, for a few days in the height of summer. The patronage awarded to the Charing-cross Floating Bath on the Thames is due to the fact that the water is thoroughly filtered and maintained at an even temperature of 70° during the whole time the bath is open to the public,—this heating being effected chiefly by the utilisation of the waste steam used to drive the filtering machinery; and I am convinced that any bath that lacks, at any rate, the qualification of warmth can only expect custom for four or five weeks at the most in each year; and although a bath may be considerably cheaper if built without a top or bottom, yet it is certain that to effect this economy the usefulness of the bath is most seriously curtailed, as I know from an extensive experience that with warmed water people will bathe far into the winter, whereas out-door bathing ceases at the first show of wet or wintry weather. E. PERRETT,

Engineer to the Floating Swimming Baths Company.

"THE PULLEY OF THE FUTURE."

SIR,—There appearing in your issue of the 24th ult. a letter under this heading, we are constrained to ask you to allow us to say that on the 6th of September, 1876, we wrote to Mr. Meakin:—"It has come to our knowledge that you claim a patent-right in the manufacture of axle pulleys with an oil conduit to the bush. As a matter of courtesy, we tell you that we made such axle-pulleys years ago, and, of course cannot hesitate to do so as occasion may demand."

To be more circumstantial, we would add that so far back as 1861 we made such pulleys for an eminent London builder for use at a house at Stanmore. HART, SON, PEARD, & Co.

SCHOOL BOARD SCHOOLS.

Gateshead.—The Sheriff-hill Board Schools, Gateshead, were opened on Tuesday, the 20th ult., by the Mayor of Gateshead. The buildings are designed to accommodate 450 children, in two divisions, viz.:—The mixed schoolroom for 300 boys and girls, and the infants' schoolrooms for 150 infants. The principal frontage is towards Church-street and the south, and is occupied by the mixed school with its class-rooms and children's cap-rooms and lavatories. The mixed schoolroom is 60 ft. by 33 ft., and opening from it are four class-rooms, two at each end, so arranged that the head master from his desk in the mixed school can command a view of the occupants of all the rooms. The class-rooms are separated by corridors 6 ft. wide, which form the entrances to the main schoolrooms for boys and girls respectively. On the south side of the corridors beyond the class-rooms are the children's cap-rooms and lavatories, and on the opposite side of the corridors are the master's and mistress's private rooms overlooking their respective play-grounds. In the rear of the mixed school is the infants' department, consisting of the main schoolroom, 30 ft. by 25 ft., with two class-rooms, each 16 ft. by 15 ft., and with mistresses' room, and children's cap-room and lavatories. The class-rooms are divided by a movable partition, so that the two rooms can be thrown into one if necessary. Latrines and covered play-sheds are provided for each school, the latter being so arranged as to screen the playgrounds from the north and north-west winds. The buildings are erected in red brick, with stone dressings, grey slate roofs, and ornamental red ridges and finials; and the treatment, both externally and internally, is extremely simple. The total cost will be somewhat over 5,000*l*. Messrs. Greason & Stockdale, of Gateshead, were the contractors; Mr. Edington was clerk of the works; and Mr. Thomas Oliver, of Newcastle-on-Tyne, the architect.

Manchester.—The memorial-stone of the new Board schools, which are already about half built, in Burgess-street, Harpurhey, has been laid by Miss Becker. The style adopted by the architects is Gothic, of a plain character. The external walls throughout are faced with picked common bricks, relieved by stone dressings, such as heads, sills, stock brick arches, blue brick bands, and moulded stock brick fascias and corbelling. A feature in the principal front is a large three-light stone mullioned window, with traceried head, and crowning this is the bell-cot. The basement story contains a kitchen and fuel stores. The ground-floor is arranged for the infants, and comprises a schoolroom, 58 ft. long by 30 ft. wide, and 15 ft. 3 in. clear height, and a class-room, 20 ft. by 20 ft., and 15 ft. high. This is accessible from the main room. The upper floor is appropriated to the girls. Two entrances are provided for each department; these are situated at either end of the main building. The staircases to the upper floors are spacious and well lighted. The internal finishings are to be of a plain but thoroughly substantial character, and suitable for school purposes. Lavatories will be provided on each floor, and also sinks, to which will be laid on hot and cold water, for cleaning purposes. The warming and ventilating of this school is being carried out by Messrs. Shillito & Shorland, by means

of their patent Manchester school grates and vertical pipe ventilators, for the admission of cold air into the various rooms without draught, and extract arrangement for the vitiated air. There will be two play-grounds, one for each department, and also two sets of offices. The school is designed to accommodate 500 children, viz., 250 infants and 250 girls. The floor-space provided for each child will be 8½ square feet, and the air-space, 130 cubic feet. The contract for the building, including boundary-walling, but exclusive of furniture and fittings, is 3,520*l.*, The works are being carried out by Mr. S. Warburton, builder, Harpurhey, under the supervision of the architects, Messrs. Royle & Bennett, Manchester.

Coupar-Angus.—New Board schools at Coupar-Angus were opened on the 19th ult. The buildings, which have been erected from plans prepared by Mr. M'Laren, architect, are one story in height, and contain separate departments for senior, junior, and infant classes. The senior department consists of one large hall, and the infant department of two large class-rooms, having a separate entrance from the other departments. The building is surrounded by an extensive playground, in which are placed the necessary offices and play-sheds. The contractors were—Mr. Thomas Lawson, mason; Mr. John Adam, joiner; Mr. James Laing, plumber; Mr. George Bannermann, blacksmith, all of Coupar-Angus; and Mr. Craigie, slater, Blairgowrie,

King's Norton.—New Board schools at King's Norton are about to be commenced. The buildings have been designed by Mr. W. Hale, of Birmingham, and will be arranged in three departments, all on the same level, with separate entrances to each from Mary-street. The front to this thoroughfare will be recessed. There will be large covered playgrounds beneath the back portions of the school, with archways on three sides opening into the general playgrounds. The buildings will be erected in red bricks, covered with tiles, the internal woodwork being stained and varnished. Accommodation is provided for 825 children. Mr. W. H. Parton submitted the lowest tender, which has been provisionally accepted by the Board. Mr. Parton's tender amounts to 6,367*l.*

Cromdale.—The new public (or Board) school at Cromdale, near Elgin, was opened on the 13th ult. The new schoolroom measures 33 ft. 6 in. by 22 ft., and is seated for seventy, but extra accommodation is otherwise provided for by the infants' schoolroom, with a gallery, which is connected with the classroom. Adjoining the schoolroom is the schoolhouse. The whole building has cost about 1,100*l.* The contractors were,—For the mason work, Messrs. John Grant & Son, Grantown; carpenter work, Mr. James M'Gillivray, do.; slater work, Mr. J. Winchester, do.; plasterer work, Mr. C. Stewart, do.; plumber work, Mr. John Hunter, Elgin and Grantown; painter work, Mr. Jas. Brander, Elgin; and Messrs. Macdougall & Co., Grantown, supplied the fittings.

Inverness.—The new Merkinch school in Telford-road, erected by the Inverness School Board, was opened on the 12th ult. The building which fronts Telford-road, consists of a centre portion and two wings,—the former recessed some 10 ft. and comprising the infant department, a large room 62 ft. by 21 ft., and seated for 150; each wing comprising a school-room 29 ft. by 20 ft., and a class-room 20 ft. by 16 ft., both 16 ft. high to the ceiling, while at the side of each wing is an entrance porch. The total cost has been 2,680*l.*, including boundary walls and outbuildings, school furniture, &c. The architect is Mr. Lawrie, Inverness; the work has been carried out by the following contractors:—Messrs. Alexander, mason, 1,225*l.*; Peter Cameron, carpenter, 799*l.* 10*s.*; Simon Mackenzie, plumber, 151*l.* 10*s.*; Allan Mackintosh, plasterer, 105*l.*; William Smith, founder, 171*l.*; and Donald Macdonald, painter, 73*l.*

The Fitzwilliam Museum, Cambridge. The syndicate have reported that in accordance with graces of the senate they have expended the sum of 600*l.* in the purchase of certain specimens of ancient glass, and one of glazed earthenware, from the Cesnola collection, ranging from an uncertain antiquity to the age of the Antonines. There still being a disposable balance in the hands of the syndicate, they recommend the purchase, at the price of 210*l.*, of a rare print of the "Death of the Virgin," by Martin Schongauer.

SCHOOL BUILDING NEWS.

Bradford.—In December last a deputation of the governors of the Bradford Endowed School waited on the Charity Commissioners, in order to obtain their consent to the application of 7,000*l.* from the endowment to the enlargement of the school. The commissioners have sanctioned the scheme of the governors, and the necessary works will be commenced without delay. The plans include an enlargement of the hall, entirely new sets of rooms for science and art purposes, and twelve spacious class-rooms. The governors also propose to set apart some of the present rooms as a Board-room, masters' common room, and secretary's office. The building, when completed, will contain accommodation for 650 boys.

Johnshaven.—The School Board of Benholm, N.B., which includes the populous fishing village of Johnshaven, has just enlarged the Free Church School, situated on the Bracheads. Mr. Matthews, architect, Aberdeen, furnished plans of the enlargement. The contractors were:—Mr. John Rae, mason, Johnshaven; Mr. D. Anderson, wright, Johnshaven; Messrs. C. Middleton & Sons, plumbers, Montrose; Mr. Grant, plasterer, Montrose. Mr. Hercules Scott, of Brotherton, chairman of the School Board, in addition to the assessment to which he is liable, has voluntarily contributed over 250*l.* to the building fund.

Breedon-on-the-Hill.—The school at Breedon-on-the-Hill, Leicestershire, built by Mr. C. Abney-Hastings, by desire of the late Countess of Loudoun, has just been opened. It presents in front two massive gables, on each of which is an inscription on a sunk panel. The side gables bear the monogram and coronet of the countess. The school is calculated to accommodate 130 children, and is built from the designs of Mr. Joyce, of Stafford.

Birmingham.—New Sunday-schools in Watery-lane, in connexion with the Palmer-street Congregational Chapel, have been opened. The building comprises a central hall, 50 ft. by 36 ft., with an average height of 26 ft. Out of two sides of this hall, in which a mixed school of twenty-four classes will be held, eight class-rooms open on the ground-floor. These are separated by movable glass screens. Over the ground-floor class-rooms are six others, which open out of a gallery running round three sides of the central hall. There is also a room in the detached building to accommodate 200 infants. The building has been erected by Mr. Walter Brooks, from the design of Mr. George Ingall, architect. About 700 persons can be accommodated in the building, the cost of which, including fittings, is 2,500*l.*

CHURCH-BUILDING NEWS.

Newabbey.—The new parish church of Newabbey was opened on the 28th ult. Visitors to the ruins of Sweetheart Abbey will remember that the old church was built under the east wall of the ancient pile. The church having become ill-adapted for public worship, the heritors of the parish resolved to build a new church which would at once meet the ecclesiastical requirements of the parish, and permit of the old church being entirely demolished. Mr. Oswald purchased the Kindar Mills and ground on which they stood, a short distance to the east of Newabbey village, and on the south side of the highway to Kirkbean, and gave the site for the new church. On the site acquired in this way the new edifice has been erected. It is in the form of a Latin cross. The nave measures 73 ft. by 25 ft. 6 in., and the transept arms measure each 17 ft. 9 in., and project 11 ft. 3 in. The walls rise to a height of 16 ft., and give support to an open-timber roof, the apex of which is 36 ft. from the floor. The pews furnish sittings for 400. The material of the walls is granite, the style adopted by the architect, Mr. James Barbour, of Dumfries, being Early English.

Cherington.—Cherington Church was re-opened on the 6th ult., after being restored. The masonry was done by Messrs. Pickering & Son, of Cherington. The painting and decoration were done by Mr. Pring, of Moreton-in-Marsh. The seats, pulpit, and communion-table were furnished by Messrs. Jones & Willis, of Birmingham, and the clock by Mr. Evans, of Handsworth. A memorial window, representing the Crucifixion and Ascension, has been placed in the chancel by the sons and daughters of Mr. W. Dickins.

Dormington.—The ancient and quaint little church of St. Peter, at Dormington, about six miles from Hereford, having undergone complete restoration, was re-opened on the 13th ult. The edifice, anterior to restoration, consisted of a thirteenth-century nave and a chancel of the fourteenth century. The east wall of the chancel had been rebuilt in the eighteenth century. The walls were covered internally with plaster, and externally with a thick coat of rough-cast. There was a south porch of timber-framing covered with rough-cast, and over the west end of the nave stood a timber belfry. On the inner face of the west wall, hidden by many coats of white-wash, were found remains of mural paintings. A large representation of Our Lord in Majesty, with an angel on each side, had been painted in red outlines, the painting covering the whole upper part of the wall. Groups, the subject of which are not yet satisfactorily identified, were on each side of the west window. In the work of restoration, funds for the work having been provided by the patroness, the Right Hon. Lady Emily Foley, the vicar (the Rev. Langton E. Brown), and the principal ratepayers of the parish, the chancel has been rebuilt. The architect has replaced all the old features, and added a large five-light east window. The nave walls have been strengthened by buttresses. A new belfry of wood, with an octagonal spire covered with lead, has been erected. The whole of the fittings have been made new, in oak and pitch pine. The walls have been cleaned and painted, and the roof timbers cleaned, opened out, and covered with boarding, felt, and Broseley tiles. A new south porch in carved oak, and also a vestry, have been added. The cost of the restoration has been nearly 1,500*l.* The architect was Mr. Blashill, of Old Jewry Chambers, London, and the builders were Messrs. Collins & Cullis, of Tewkesbury.

Basford.—The nave of the new church of St. Augustine, Basford, Notts, was consecrated on the 16th ult. by the Bishop of Lincoln. The building is situated in High church-street, Basford, and the works at present completed comprise a portion only, viz., the nave and porch, of the proposed church. The dimensions of the nave are,—length, 76 ft.; width, 30 ft.; height to the top of the walls, 30 ft.; to the collar-pieces of the roof, 40 ft.; to the ridge, 52 ft. When finished, the church will consist of nave and chancel, with north and south aisles to each, and a south porch in the western bay of the nave, and will form a block of buildings about 120 ft. long and 65 ft. wide. The walls are of Bulwell stone, lined with brick and plastered, and the roofs are covered with brindled Staffordshire tiles. The nave-arcades and the dressings of the windows and doors are of Ancaster stone. The seats in the nave are of deal, stained and varnished, and will accommodate 340 people. The old building now forms an aisle, and provides space for 130 children. Messrs. Pattinson & Sons, of Ruskington, near Sleaford, were the contractors for the main portion of the works. The gas-fittings were supplied by Mr. Danks, and the church is warmed by an apparatus supplied by Messrs. Jobson & Co., Derby. Messrs. Evans & Jolley, of Nottingham, are the architects. The cost of the entire proposed building is estimated at 4,000*l.*

Spexhall.—The restoration of Spexhall Church, Suffolk, has just been completed. The church had until lately been much neglected, and it was consequently in a deplorable condition. It being considered desirable to remedy this state of things, some of the parishioners took the matter thoroughly in hand, and the result was that a subscription list was opened and liberally responded to, and a large sum being speedily raised, the work of restoration was proceeded with, the principal works being an entirely new roof of pitch pine, and open benches of the same material. The chancel floor has been raised, and paved with Minton's tiles, and a new three-light window has been inserted in the east end. The old rood-loft stairs were discovered, and are now brought out to view. The old pulpit has given place to a new one of pitch pine, the panels of the old pulpit being worked in. The roof, which was formerly thatched, is now slated. Mr. J. K. Colling, of London, was the architect; Mr. Daniel Day, of Eye, did the woodwork; and Mr. Vine, the masonry. The church was re-opened on the 8th ult.

Heatherlie.—On the 21st ult. a new church was opened at Heatherlie, Selkirk. The new building, which is intended to serve the purpose of a chapel-of-ease to the parish church, has been built after a design by Messrs. Wardrop & Reid, architects, Edinburgh; but the spire, which

is intended to rise to the height of 130 ft., remains to be added. The style is Early Decorated Gothic; and in form it presents a nave terminating eastward in an apse, with broad north and south transepts, the length being 97 ft., and the breadth across the transepts 74 ft. Freestone of a light cream colour from Prudham quarries, near Hexham, has been used in the outer walls of the building; and among its most marked features are the great west window and the two large transept windows, all having stone mullions and rich tracery. Double and single lancet windows also light the area of the church, and the vestry and organ-chamber, which occupy the apse. All the windows are filled with tinted cathedral glass. The roof is steep in its pitch, and covered with green Westmoreland slates. The interior presents an open roof, the timbers being exposed almost to the ridge; in height the side walls are 20 ft., and from the floor to the centre of the ceiling the height is 44 ft. The church is heated with Perkins's hot-water pipes, fitted up by Mr. C. Ritchie, Edinburgh. The tradesmen employed have been Mr. William Deans, builder; Mr. William Nichol, painter; and Messrs. John Smith & Son, gasfitters, &c., all of Selkirk; and the work has been carried on under the superintendence of Mr. James Slater, clerk of works.

Cheadle.—It has been decided to proceed with the restoration of Cheadle parish church, and the plans of the architect, Mr. Medland Taylor, will be carried out by Mr. T. Wharam, of Hyde, whose tender the committee have accepted. It is expected that the work will be completed before the end of the present year.

DISSENTING CHURCH BUILDING NEWS.

Shepton Mallet.—The Congregational Chapel at Shepton Mallet was reopened on the 20th ult., after considerable restoration, there being nothing left of the original building with the exception of the walls and roof. The pews have given place to open sittings of pitch pine, and the two side aisles are laid with Minton's tiles. The gallery is on three of the sides, the front being open panels, filled in with light ironwork. A rostrum has been substituted for the old pulpit. The plans were drawn by Mr. Day, of Glastonbury; and the whole of the work carried out by Messrs. J. & S. Emery, of Shepton Mallet and Oakhill, and Mr. W. Cook, of Shepton Mallet, the latter being entrusted with the lighting arrangements.

Bromyard.—Extensive additions are about to be made to the Bromyard Wesleyan Chapel, in the shape of Sunday-school class-rooms, minister's vestry, &c. Mr. Pearson, architect, of Ross, has prepared plans for the works, which are estimated to cost 500*l.*

Huddersfield.—On the 13th ult. the Mayor of Huddersfield laid the corner-stone of a new chapel for the United Methodist Free Church at Moldgreen. The new building will be in the Italian style, will seat 700 people, and the cost of the whole of the work is estimated at 5,500*l.*

North Newington.—A small chapel for the Independents was opened at the village of North Newington, near Banbury, on the 11th ult. It was designed and built by Mr. Kingerlee, and is of brick with Bath stone dressings. The place will seat 120 people, and is fitted up with benches of stained deal. The cost has been 270*l.*

Windsor.—On the 21st ult. a new Wesleyan Chapel was opened at Windsor. The building, which is erected in the Gothic style, of the Early Decorated period, stands at the junction of Alma-road and New-road. The walls, which are built upon concrete foundations, are of Bargate stone, of a bluish colour, with white Bath stone for the doors, windows, and other dressings. The principal entrance front is towards New-road. Above the main gable, which is pierced with a five-light window, is a timber-framed spire, the top of which is about 100 ft. from the ground. The interior of the spire is fitted with the means of ventilating the whole of the chapel. The ground floor of the chapel occupies a space of 67 ft. by 44 ft., and contains sitting accommodation for 400 persons, besides a large area devoted to the Communion space and pulpit. Galleries on three sides of the chapel afford sitting accommodation for 250 more, making the total number of seats 650. At the back of the chapel are class-rooms, vestry, lavatory, &c., and above these rooms is a schoolroom 60 ft. by 28 ft. The chapel, schools, and class-rooms are heated by means of Grundy's hot-air apparatus, and the ventilation has been very carefully studied. The buildings have been erected by Mr. George Reavell, of Windsor, at a cost of 4,400*l.*, from the designs and under the personal supervision of Messrs. Morris & Stallwood, architects, Reading.

THE LATE MR. ROBERT MATHESON, ARCHITECT.

THIS gentleman, who occupied the position of Surveyor for the Board of Works in Scotland, died on the morning of the 5th inst., at his residence in Edinburgh. He is the author of the designs for several public buildings in Scotland, and as such has left his mark on his native country. A list of the most important of these is annexed. Mr. Matheson is one of the rare examples of a civil servant of the Crown who has risen from the position of a junior clerk to that of head of a department. The deceased gentleman was a native of Tain, in the county of Ross, and was born in the year 1808. After completing his education in the North he came to Edinburgh and entered the service of the late Mr. Robert Reid, King's Architect for Scotland. Mr. Reid retired in 1840, when the office was put upon a new footing, and Mr. Nixon, from the Office of Works in London, was appointed his successor under the title of Clerk of Works for Scotland, and the services of Mr. Matheson were retained as one of the staff. Mr. Nixon died in 1848, and for some time the vacancy remained unfilled. After some delay Mr. Matheson was appointed to the office *ad interim*, and held it under that tenure for about a year. The satisfactory manner in which he performed the duties induced the Government to appoint him to the office permanently.

Mr. Matheson's *chef d'œuvre* is the General Post-office in Edinburgh, but this is not carried out as originally designed by him, having been considerably reduced in the matter of detail. Mr. Matheson was ever genial and affable in manner; his promotion made no difference in his intercourse with his fellow civil servants who were not visited with the like good fortune, and he carried the same feelings into his business relationships.

Besides his works as a public official, Mr. Matheson designed for himself the elevations of several streets and crescents which have been built upon the estate of West Coats, which he purchased about fifteen years ago, and which must have proved a very profitable investment.

Mr. Matheson was the architect of the following buildings:—The Botanical Museum and Palm House, Edinburgh; New Register House and Record-room, Edinburgh; General Post-Office, Edinburgh. He also carried out the design of Captain Fowke for the Museum of Science and Art in Edinburgh; improvements at Holyrood Palace, embracing new guard-house and park lodges, the laying out of the Palace gardens, and the formation of a carriage-drive through the park from St. Leonard's to Daddingston; the Post-office buildings at Aberdeen, Perth, Dundee, Paisley, and Glasgow; the "restoration" of Glasgow Cathedral; alterations and additions to the University buildings of Aberdeen and St. Andrew's; restoration of Linlithgow Church; and additions to General Prison at Perth.

VARIORUM.

Leisure Hour has some useful words on House-gardening:—"When balconies or leads over porticos are to be filled with flowering or other plants, they should be fitted with boxes to contain the plants. In many cases the boxes only serve to contain the pots in which greenhouse plants are grown, but in others they are filled with earth, in which mignonette and other annuals are sown. When the boxes are intended to be fixtures, and to stand out all the winter, they should always be made of slate. If the boxes are only to stand out during the summer they may be made of wood, and they should be made of the best yellow deal, and painted. The dimensions of boxes may vary according to circumstances, but it is best not to have them more than 3 ft. or 4 ft. in length, as, if longer, they are difficult to move. The depth of the boxes should never be less than 7 in., but it need not be more than 10 in. for boxes of the largest size. It is always best to have boxes for balconies, as when the pots are set without boxes on the leads, which soon become very hot from the sun, the roots of the plants are parched and withered up; and a similar effect takes place from the drying effect of the wind when the pots are set on the bars of an open balcony. This is one of the reasons why plants bought in the streets and set in a balcony so very seldom last long, and why the flower-buds so often drop off without expanding. The plants are grown in the nursery garden, in very small pots, to save room, and when they are removed from the pits in which they were kept in the nursery to the leads or bars of a balcony, it is almost impossible to keep them alive very long, unless they are kept in boxes, or, as a substitute, in double pots. Boxes, however, will always be found to be much the best. If boxes are not used, a circular wire stand of four tiers for plants will be found a good substitute, as the plants can be readily and tastefully arranged on each tier, and, moreover, can be most easily changed if they should begin to fade. In this case the best plan is to have ornamental pots to receive the common flower-pots. Care should be taken in all cases that the plants have a sufficient supply of water, and that the leaves are kept clean by syringing or by sponging."—"Picturesque Europe" gives us a note on Hever Castle:—"The old, grey house lies low, in a hollow, and small hills rise up gently all about it. The old moat still stretches sluggishly round the building, and is crossed by a drawbridge, leading to a gateway in which a portcullis yet grins frowningly. Hever is a domestic fortress, and blends the sullen distrust of the castle with the secure serenity of the mansion. It is capable of defence, and yet is charming for residence. It is a characteristic specimen of the transition age of building to which it belongs: an age in which men had not wholly laid aside the long habit of distrust of an enemy, while they began to desire the conveniences of a home which should be more comfortable than a merely armed house. Hever is, in fact, a house in half-armour. Built in the time of Edward III.,—a reign in which many similar structures were erected all over the country,—Hever is a fine and quaint castellated mansion. Its original builders and owners were the Norman Hevers; but this family made but little mark in history, and died out without having so lived as to retain much place in record or in romance. Hever, like Haddon, is linked to romance, and endeared to the imagination, by the image of a fair woman. Unlike as they are in character and in fortunes, Anne Boleyn is yet, to Hever, almost that which Dorothy Vernon is to Haddon. The fair and ill-fated Anne is the dominant figure, which always fills the mind's eye when we think of her dear old home. She was born in 1501 or 1507. Her mother was Elizabeth Howard, daughter of the Duke of Norfolk; and her father was Sir Thomas Boleyn, afterwards Earl of Wiltshire, who died, where his daughter had been born, in Hever. The Bullens were an old Norfolk family; and William Bullen, great-grandfather of Anne, a silk mercer, and Lord Mayor of London in 1459, bought Hever Castle. In the mansion, Anne of Cleves, another wife of Henry VIII., died in 1556. In the quadrangular courtyard, which casts sharply-defined shadows across the sunlight, and in other parts of the building, you will see those Tudor windows which mark occupancy and additions in that day."

Sir G. G. Scott in Defence.—The Rev. F. Pigou, vicar of Halifax, has received a letter from Sir Gilbert Scott, in which, referring to the rumour and comment of the *Athenæum*, on the supposed costliness and modernisation of the parish church, he says:—

"A sermon preached upon a spurious text is hardly worth commenting upon. The writer founds his remarks on the false statement which appeared somewhere, that I estimated the work at 40,000*l.*, whereas I had at that time made *no estimate*, and the work proposed would come to only between one-half and one-third of that amount. He no doubt supposes, and not without a show of reason, that so enormous a sum could not be expended without a danger, or a necessity, of interfering with the ancient character of the church; whereas you know, from what I have said to you, and will see from my report, that my object is the *very reverse*, being to conserve and bring out to greater advantage all that is old and valuable in the church. Chester Cathedral is thrown in my teeth, where the intense decay of the external stonework *necessitated* an extensive amount of renewal of the exterior, which I much regretted, but where internally not a bit of old work has been tampered with, but a vast quantity brought out to view, and the deep colour of the old stone exposed to view by the removal of whitewash, without even the tool marks of the old men being disturbed. At Exeter, the whitewash has, it is true, been removed, and the old stone, with its beautiful tones, brought to light, but not a jot or a tittle of old work disturbed. I am known as a devotee to Conservatism in the treatment of old buildings, and, such is the perversity of man, that I believe it is *for this very reason* that I am falsely accused of the reverse.—Yours very faithfully, G. GILBERT SCOTT.

P.S.—The exterior of the church I do not propose to touch, except the replacement of lost parapets; it is generally in sound condition."

"ILLICIT COMMISSIONS."

SIR,—Among the later letters addressed to the press on this subject, some have been calculated to create an impression that this Institute is indifferent to the suggestions which have been made respecting the necessity of special legislation as a remedy for the evil complained of.

I am requested to state that this impression is quite unfounded, and that our Council would gladly support any effective measures which may be proposed either by the Government or by independent members of Parliament, with the view of making the violation of trust by fiduciary agents a penal offence, so far as the relations between architects and their clients are concerned.

I am directed to add that so far from there being any indisposition on the part of this Institute to promote so desirable an object, our Council have appointed a committee for the express purpose of considering what steps can be taken towards the attainment of that object.

CHARLES L. EASTLAKE,
Secretary, Royal Institute of British Architects.
8th March.

Miscellanea.

Historic Memorials.—"An Architect" writes to the *Daily News*:—I shall be obliged to you if you will allow me to call attention to what I fear is one fruitful cause of the destruction of memorials of the generations passed away. An old church, containing it may be tablets and slabs, is restored or rebuilt. What is to be done with these monuments? The former, being in all probability Italian, or more often rococo in design, are considered quite out of character with the primness of restored Mediævalism, and the latter are sorely in the way of fashionable encaustic tile pavings. With such considerations as these outweighing all others of sentiment and propriety, we shall not be surprised to find that the despised monuments are, in such cases, relegated to oblivion or destruction. Many a parish has its history written to a great extent on the tablets in its church—and unspeakably interesting are those to the student of history and to the herald and genealogist; indeed, some churches obtain almost their sole claim to interest from their monuments. A notable instance of this is Chelsea Old Church, which possessed in addition a fine artistic value in the picturesque and quaint assemblage of the tombs of Dacre, More, Stanley, Cheyney, and others less known to fame. What I would fain enforce upon those who are connected with church restoration is this—that even if re-arrangement be necessary, all monuments, as such, without regard to the celebrity or otherwise of the inscribed names, and quite apart from architectural considerations of taste, should be religiously preserved in a suitable position on the walls of the church, and that all monumental slabs should be relaid in such position that they be neither hidden from sight nor worn by direct traffic."

New Method of Horseshoeing to Supersede "Roughing."—A new horseshoe has been invented by Mr. A. B. Fleming, of Hillwood, Corstorphine. The shoe is of the ordinary shape, but has three holes punched in it,—one at the toe and one at either side of the heel,—and into these holes a set of keyed studs are inserted. The studs are of cast steel, and pointed so as to give the horse a firm grip of the frozen ground without slipping. Presuming that the horse is furnished with Mr. Fleming's new shoes in the beginning of winter, and the holes filled up with a plug of hard wood, or with a blunt stud if thought desirable, when a frosty day occurs, the groom or coachman has simply to take out the blunt stud, or extract the wooden plug with a brogue. The studs are then inserted in the holes,—the key of the spike fitting into a slit in the hole. A small wrench or pair of pliers is then used to give a half-turn to the stud, which is prevented falling out by the key. Into a slit in an angle of the stud corresponding with the slit in the keyhole of the shoe a small wedge of wood is driven home to keep the stud firmly in position. When frost disappears, or the stud is worn down so as to be ineffective, the small wedge of wood is taken out by a brogue, the stud is turned round till its key is opposite the slit in the shoehole, and then it is easily withdrawn. Mr. Fleming has not patented his invention.

Royal Institute of British Architects.—An extra special general meeting of members only will be held on Monday evening next, for the consideration of the Report of the Committee for the Improvement of the Institute, and of any motions which may be made on the subject. At the special general meeting held on Monday last, Mr. Henry Currey, vice-president, in the chair, it was unanimously resolved—"That it be humbly submitted for Her Majesty's gracious consideration that the Royal Gold Medal for the year 1877 be awarded to Charles Barry, Esq., F.S.A." The formal presentation of the Royal Gold Medal, and of the Institute prizes, will take place at the last general meeting of the session, Monday, 11th of June.

Rateable Value.—The Government Bill for the valuation of property states the limits of the rate of deductions to be made from the gross value in calculating the rateable value as follows:—Maximum rate 25 per cent., or one-fourth, in Class 1, comprising houses and buildings without land other than gardens, and where the gross value is under 20*l*. Where the gross value is larger the maximum rate for houses and buildings, without land other than gardens and pleasure-grounds valued therewith for the purposes of inhabited house-duty, is to be (Class 2) one-fifth where the gross value is under 40*l*., and (Class 3) one-sixth where the value is 40*l*. or upwards. In regard to buildings without land which are not liable to inhabited house-duty, the maximum rate of deductions is to be (Class 4) one-fifth where the gross value is 20*l*. and under 40*l*., and (Class 5) one-sixth where the gross value is 40*l*. or upwards. In Class 6, consisting of land with buildings not houses, the maximum rate is to be one-tenth; and in Class 7, consisting of land without buildings, one-twentieth. The maximum is one-third for Class 8,—namely, mills and manufactories, including blast and smelting furnaces and kilns. In Class 9, rateable hereditaments not included in any of the foregoing classes, the rate of deductions is to be determined in each case according to the circumstances and the general principles of law as amended by this Act; and in this class are to be included houses or buildings let out in separate tenements. The maximum rate of deductions in any class may be exceeded where it is insufficient to include extraordinary expenditure required to maintain banks, dykes, watercourses, or other works for the protection of land or buildings against water. Farms, exclusive of the houses thereon, may be inserted either as land with buildings under Class 6, or the land may be inserted under Class 7, and the buildings under Classes 1, 4, and 5.—*Times*.

"Taking the Chances."—In an article on "The Scope of Governmental Interference for the Prevention of Accidents," the "Journal of the Franklin Institute" says:—The chance that a fire should occur at all in any theatre, *any year*, is not, perhaps, 1 in 200 or 300, whence the chance *any day* is but 1 in 75,000 or 110,000; while the chance that a fire will occur when a performance is going on, is not over one-half these ratios, and 1 to 150,000 or 200,000 is, perhaps, a fair estimate of the risk of burning during the time of a performance on any given day. Even this great ratio is increased when the individual chance of escaping from the fire is taken into the account, so that the risk of life to any man, woman, or child, in any theatre, any night, is not 1 in 1,000,000. The risk of loss of property by owners each year is, as has been taken, 1 in 200 or 1 in 300, and the insurance is cheerfully paid, after which no feeling of risk remains with the owner. Even if the construction is admitted to be dangerous, the ratio of extra danger is met by an owner in enhanced premiums, at much less expense than the cost of alteration to remove danger, while the underwriter is happy in the increased profit which the rate of premium affords. These small risks are accepted by the entire community. When in the fulness of time, the disaster at Brooklyn, or elsewhere, occurs, the immediate shock will affect the pleasure-seeker, and attendance will fall away from places of amusement, a spasmodic official inquiry will be instituted, a number of moral communications be offered to the newspapers, and a few which are entirely impersonal, as regards any possible advertising patrons, will be published; but the seven days' wonder will pass away, and the old rule of "taking the chances" will be re-established with greater strength, as the next catastrophe *may* not be so dreadful as the last.

The Hastings Water Supply.—About a year ago much was being said by correspondents of the local papers as to the quality of the water supplied to Hastings and St. Leonards. The controversy found its way into our own columns and into those of the medical journals. In the localities affected, the subject was made very much a matter of party feeling, many of the inhabitants looking at it solely from what may be called the "lodging-house-keepers' point of view," refusing to hear a word said against the water-supply lest visitors should be frightened away or deterred from coming. Amongst those who were bold enough to say that the water-supply was not all that it should be, was the Rev. J. A. Hatchard, a clergyman owning property to the extent of 40,000*l*. in St. Leonards. For thus speaking his mind he seems to have incurred much obloquy. He was serenaded at his residence with what is known as "rough music," and for a time he was in bodily fear. The violence with which he was threatened was, he believes, incited by some remarks in the *Hastings Observer*, by a writer signing himself "Tristram Shandy," who stated that Mr. Hatchard had been heard to declare that "he would ruin the town, though it cost him 5,000*l*." For this and other statements of the kind Mr. Hatchard brought an action for libel against the newspaper mentioned, claiming damages to the amount of 1,000*l*. The case was heard last week at the Sussex Spring Assizes, before Mr. Justice Brett. Evidence was given with the view of supporting the statement made by the newspaper writer, but, as Mr. Justice Brett remarked in summing up, it was evident that if Mr. Hatchard ruined the town, he would ruin himself, having 40,000*l*. worth of property in it. The jury, without acting upon the Judge's suggestion that they should retire to a private room to read over and consider the article which was the subject of the alleged libel, found for the defendant.

The Late Mr. Samuel Lahee.—The furniture and effects of the late Mr. Lahee, at his residence, 17, Brompton-square, announced for sale on the 14th and 15th inst., by Messrs. F. Godwin & Basley, of Motcombe-street, include a small collection of works of art in the shape of pictures, prints, and bronzes, noticeable for their genuineness. Mr. Lahee, long and honourably known as an auctioneer and valuer, was one of a comparatively small band at that time who always sedulously maintained the dignity of his profession.

The Victoria Institute.—At a meeting at 10, Adelphi-terrace, on Monday evening last, a paper was read by Professor Birks, of Cambridge, on "The Bible and Modern Astronomy," in which he held that modern science ought not to be held up as contradicting the Bible; that there was evidence that the Book of Science and the Book of Revelation, when fully understood, would be found to harmonise; in the meantime all investigations constantly warned us that hasty conclusions of every kind were to be avoided by all parties.

The Sunday Society.—This society, established to obtain the opening of museums, art-galleries, libraries, and gardens, on Sundays, and of which the Very Rev. the Dean of Westminster has consented to become the president, will hold its Annual "Evening Party" at Willis's Rooms, on the 14th inst. The programme for the evening will commence with a meeting in the large hall, at half-past eight, when short addresses will be delivered by prominent supporters of the movement.

Treating Town Sewage.—A meeting of what is called the Sanitary Institute of Great Britain will hold a public meeting to consider the report recently issued by the committee appointed by the President of the Local Government Board upon the disposal of town sewage, at the Rooms of the Society of Arts, on Wednesday, March 14th. The Duke of Northumberland will preside.

Warming of Leyton Chapel.—The committee have decided to adopt the plans of Messrs. S. Chandler & Sons, of 104, Newington-causeway, for heating the above, the same firm being also employed to carry out the work.

The Plasterers' Company, according to the *City Press*, again offer prizes to be competed for by students in metropolitan and provincial schools of art in connexion with the Science and Art Department.

Hounslow Brigade Depot.—Messrs. Wm. Downs & Co., contractors, of Union-street, Southwark, have been entrusted with the completion of these works.

Glasgow Theatre.—Mr. J. T. Robinson has been instructed to prepare plans for the reconstruction of the present Theatre Royal, Glasgow, with Aquarium and a Bijou Theatre attached for rehearsals.

TENDERS

For the erection of Primitive Methodist Chapel and School, King's-cross. Mr. A. J. Rouse, architect:—

		Boards instead of Plastering.
Grimwood & Sons	£6,496 0	£45 0
Niblett	6,464 0	43 0
Lamble	6,370 0	70 0
Parker & Evans	5,600 0	43 0
Burman	5,590 0	28 0
Sawyer	5,453 0	43 0
Battley	5,420 0	35 0
Prebble & Co.	5,380 0	40 0
Webber	5,368 0	16 0
Ricketts	5,300 0	58 17
(No name)	5,160 0	50 0
Goodman	4,973 0	—
Warr	4,725 0	28 0
Beale	4,375 0	32 0
Hebern	4,300 0	45 0
Stead Bros.	4,200 0	13 0
Hocking*	3,905 0	30 0

*We are requested to say this was an error on the part of the builder: the amount should be 4,155*l.* and 30*l.*

For new schools at West Thurrock, Essex, for West Thurrock School Board. Mr. E. C. Allam, architect:—

Joyes & Co.	£2,729 6 4
Staines & Son	2,438 0 0
Castle	2,345 0 0
Webb	2,247 0 0
Hamlin	2,170 5 0
Cutting (accepted)	2,116 15 0

For three mansions at Mandeville-place, James-street, for Mr. J. S. Hendry. Quantities by Mr. S. Thacker. Mr. J. Norton, architect:—

Braid & Co. (accepted)	£16,344 0 0

For the erection of Wesleyan Schools, Barrow-hill, St. John's Wood. Mr. Chas. Bell, architect. Quantities by Mr. Henry Lovegrove:—

Tarrant	£1,737 0 0
Tavenor	1,705 0 0
Scrivener & White	1,705 0 0
Densham	1,647 0 0
Burford	1,632 0 0
Bresley	1,609 0 0
Harkworth	1,594 0 0

For school buildings, St. Vincent's Home, Westbourne-green, for the Rev. Lord Archibald Douglas. Mr. John G. Hall, architect:—

Smith	£2,543 10 0
Orr & Co.	1,897 0 0
Thomas & Butland	1,669 0 0
Nightingale	1,655 0 0
Stimpson & Co.	1,635 0 0
Battley	1,570 0 0
Clarke & Bracey (accepted)	1,529 0 0

For the erection of schools, Walton-on-the-Hill, Epsom. Mr. F. J. Dibble, architect:—

Lynn & Dudley	£1,212 0 0
Colls & Sons	1,190 0 0
Putney	1,163 0 0
Heselgrave	890 0 0
Richbell	885 0 0
Batchelar (accepted)	837 0 0

For alterations and additions to a house, Bridge-street, Leatherhead, for Mr. Thos. Chitty. Mr. F. J. Dibble, architect:—

Sims	£597 0 0
Edson	570 0 0
Batchelar	455 0 0
Walker	439 0 0
Brown (accepted)	378 0 0

For the erection of tanning-shed and warehouses, at Rugeley, Staffordshire, for Messrs. Stokes & Co. Mr. Samuel Loxton, architect. Quantities by the architect:—

Nelson	£1,690 0 0
Gullimore	1,598 0 0
Morris	1,595 10 0
Buxton & Co.	1,569 19 1
Dawson & Bradney	1,469 0 0
Adkins	1,420 0 0
Rowley & Lynex	1,410 0 0
Robinson	1,400 0 0
Slater	1,370 15 0
T. & H. Brown	1,291 0 0

For brick sewers, for the Islington Vestry:—

Crockett	£545 0 0
Taylor	475 0 0
Rowley	465 0 0
Pizzey (accepted)	403 0 0

For the completion of eight nine-roomed houses, in the Riversdale-road, Highbury New Park. Messrs. Toy & Franks, architects:—

Jopling & Co.	£1,500 0 0
Mitchell	1,185 0 0
Steel Bros.	989 0 0
Winship	969 0 0
List	896 0 0
Glasspool	880 0 0
Carmody	800 0 0
Dales	725 0 0

For a block of school buildings, including fittings and erection of boundary walling, &c., at East-street, Littlehampton, for the Littlehampton School Board. Quantities supplied:—

Coles	£2,629 0 0
Hayter	2,535 0 0
Burkitt	2,478 0 0
Longley	2,380 0 0
Snewin*	2,077 0 0
Hide & Co.	2,055 0 0

* Accepted, subject to approval of Education Department.

For rebuilding the Queen's Head Tavern, Theobald's-road. Mr. Lewis H. Isaacs, architect. Quantities by Mr. L. C. Riddett:—

Patman & Fotheringham	£6,175 0 0
Killby	5,857 0 0
Scrivener & White	5,795 0 0
Browne & Robinson	5,730 0 0
Macey	5,713 0 0
Brass	5,697 0 0
Nightingale (accepted)	5,293 0 0

For mission-hall and schools, Stewart's-lane, Battersea. Mr. W. H. Rawlings, architect. Messrs. Franklin & Andrews, surveyors:—

McLachlan	£2,945 0 0
Downs	2,645 0 0
Brass	2,597 0 0
Lathey Bros.	2,590 0 0
Macey	2,534 0 0
Hill, Higgs, & Hill	2,384 0 0
Nightingale	2,273 0 0

For mission-hall, vestry, and offices, at Creek-street, Church-street, Deptford, for Rev. J. T. Wigner. Mr. E. Clark, architect. Mr. H. W. Sexton, surveyor:—

Gammon & Sons	£2,213 0 0
Cain	2,143 0 0
Macey	2,056 0 0
Allpress	2,000 0 0
Hill, Higgs, & Bill	1,982 0 0
Cooks	1,887 0 0
Green	1,877 0 0
Rider & Son	1,828 0 0

For excavations, embankments, with two bridges, culverts, &c. in formation of road, Widford, Hertfordshire. Mr. T. Wilson Grindle, engineer. Quantities supplied:—

Joyes & Co.	£3,513 0 0
Hunt	3,995 0 0
Lawson	3,908 0 0
Hanson	3,175 0 0
Dowell	3,041 7 2
McKenzie	2,970 0 0
Stuart	2,858 1 3
Pound	2,832 0 0
Rowland	2,800 10 0
Wainwright	2,745 0 0
Green	2,506 0 0
Potter (accepted)	2,400 0 0

TO CORRESPONDENTS.

"Gold and Silver in Solomon's Time" (a number of letters, all on the Silver side, have been received. Mr. Hugh Stannus, amongst others, sends us the Hebrew text, with comments).

The Royal Gold Medal (several letters on this subject shall receive attention).

F. F.—Dr. L. M.—E. S. R.—J. B. & Son.—J. G. T.—I. U. L. G.—H. S. S.—W. S. R.—G. M.—H. S.—A Fellow.—T. W. G.—F. W.—J. P.—T. & F.—H. H. & H.—J. P.—S. & Co.—W. G. S.—T. W. (send such note as you wish inserted).—H. G. (next week).—G. S. P. (next week).—F. N. B. (next week).—T. C. E. (next week).

We are compelled to decline pointing out books and giving addresses.

All statements of facts, lists of tenders, &c. must be accompanied by the name and address of the sender, not necessarily for publication.

NOTE.—The responsibility of signed articles, and papers read at public meetings, rests, of course, with the authors.

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